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MY HOME IN THE ALPS.

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My Home in the Alps.

BY

MRS. MAIN,

AUTHOR OF

"THE HIGH ALPS IN WINTER; OR, MOUNTAINEERING IN SEARCH OF HEALTH,"
AND "HIGH LIFE AND TOWERS OF SILENCE."

Le Blond, Elizabeth Alice Frances
" (Hawkins-Whitshed)

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PREFACE.

In this little volume, much of the matter in which first appeared in the *St. Moritz Post*, or, as it is now called, the *Alpine Post*, I have jotted down a few things of interest to the ordinary traveller in Switzerland. To climbers, my notes will be but a thrice-told tale, and one which, doubtless, many of them could tell far better, while not a few of them have already told it elsewhere. The idea of publishing these trifling papers came to me through the necessity of replying to many questions on the subjects to which I refer; for, living as I do in Switzerland, I naturally am supposed to be more familiar with the peculiarities of the country and people than is the ordinary tourist. It thus seems to me that a small book, dealing with some of the various objects of interest usually met with during a summer's tour in Switzerland, might find a corner in a traveller's portmanteau, and so, asking

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indulgence for the errors into which I am sure I have fallen from time to time, I commend the following pages to whoever does me the honour to glance at them.

E. MAIN.

ENGADINER KULM,
SWITZERLAND.

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MY HOME IN THE ALPS.

CHAPTER I.

ON ALPINE GUIDES.

BEYOND the comparatively small circle of climbers, very few travellers in Switzerland seem to have a clear idea to what class of man a good Alpine guide belongs. Many persons picture to themselves a typical guide as an individual whose garments are in as shocking a state of disrepair as are the summits of most of his native peaks; who bears visible and invisible evidence of an entire ignorance of the use of soap in combination with water; to whom Truefitt is embodied twice a year in his wife, unless perchance his youngest born is allowed as a treat to wield the shears; whose manner is boorish, whose gait is too strong a mixture of a roll and a limp to be classified even as a slouch, and whose chief aim in life is the extraction of the largest possible number of francs from his employer's pocket

in return for the smallest possible amount of work. Furthermore, these people have curious ideas as to "the whole duty of" a guide. They think that he is bound to obey, without remonstrance on his part, any orders, however unreasonable, that his employer may give him. They expect no common-sense, education, or knowledge of the world from him, so they treat him as if he were a clumsily constructed machine, capable of running in the groove of an oft-traversed track, and of nothing else.

Now, it is a pity that such ignorance should prevail on the subject, and I propose to do my humble share in dispelling some of it by pointing out the chief characteristics of a first-rate Alpine guide, and backing up my opinion by anecdotes of the behaviour of some of the masters of mountain-craft when confronted with exceptionally strong calls on their capacity.

Before going further, I should like to say something of the early training of a guide. He usually makes acquaintance with climbing when very young, his first scrambles being often undertaken in the company of the goats. In time he gains confidence, steadiness of head and foot, and a knowledge of the limit of his powers. As years go on, he is perhaps taken out chamois-shooting by his

father, and in summer he obtains an occasional engagement as porter on an ascent of more or less difficulty. If he has definitely resolved to be a guide, he will do his best to get work of this sort, and it often happens that an active young porter, who has carried one's rugs and firewood to a bivouac over-night, begs to join the expedition in the morning, "just to learn the way." In reality, his chief object is to secure a few lines of commendation in his book, which will help him to future engagements, and will also be so much to the good when he puts forward his claim to a certificate as guide. When ascending the Jungfrau some years ago, our porter, at his urgent request, came on with us to the top, and it was interesting to notice the careful teaching which my two veteran guides, old Peter Baumann and old Peter Kaufmann, bestowed on him. It was the youth's first mountain, and I could see that he strained every nerve to avoid a slip and to gain my good opinion, in which he certainly succeeded, for he went very well, though he was, not unnaturally, scared at the huge crevasses below the Bergli, the glacier being just then in a particularly bad state. Very different was the behaviour of another porter, chartered to carry my camera on any easy snow-ascent. He, too, had never before

set foot on a mountain, and he commenced his antics at the snout of the Forno glacier, which he mounted on all-fours. Farther on he objected to the crevasses, and when we reached the *arête*, he was so formidable an appendage on the rope that we untied, and went up the last rocks in two parties, on two ropes, another lady, an Eton boy, and I leading, and the porter and the two guides following!

A porter, if he shows good climbing capacity, will often be taken in the height of the season, when guides are scarce, to accompany a guide and a traveller in the less difficult ascents, in order that there may be three on the rope, an important matter on snow. He will probably undertake most of the carrying, for the simple reason that the guide leads and cuts the steps, and, in descending, comes down last, in both of which cases it is well for him not to be burdened with a knapsack, but to give his full powers to his work in ascending, and in coming down to be the more secure in his responsible position of "last man."

Occasionally the boy becomes a guide without passing through the intermediate state of a porter. Here is an account of Joseph Imboden's experiences. I had the details from the guide himself, but the account is also to be found in the bio-

graphical notice written by Mr. G. S. Barnes in "The Pioneers of the Alps."* "When I was a boy," Imboden began, "my father wished me to take up shoemaking as a trade, and at fifteen he apprenticed me to a man in the Rhonethal. But I hated the life, and as soon as I had saved twenty francs I ran away to the Riffel, where I stayed, and spent my time in asking people to let me take them up mountains. They, however, always said to me, 'Young man, where is your book?' I replied that my book was at home, but they would not believe me. At last, when my twenty francs were nearly gone, I contrived to persuade a young English gentleman to allow me to take him up the Cima di Jazzi. He was pleased with the way I guided him, and the day after we went up Monte Rosa alone. He then offered to take me to Chamonix by the Col St. Theodule and the Col du Géant, and I was very glad to go; but first I told him the whole truth. I said, 'All I have told you up to now was lies; I had never been up a mountain till I went with you; but if you will trust me now, I am sure I

* "The Pioneers of the Alps," by C. D. Cunningham and Captain Abney, F.R.S., published by Messrs. Sampson Low, Marston, Searle, & Rivington.

can satisfy you.' He said he would, and we went to Chamonix and did some climbs there. I bought a book, and he wrote a good account of me in it. Since then I have never been in want of employment." Such is Joseph Imboden's early history, and his friends will admit that it is thoroughly characteristic of the since famous guide.

A porter desiring to become a guide must generally pass an examination in a variety of subjects which are not of the slightest importance to him in his future profession. The occasion is dignified by the presence of the *guide-chef* (or head of the Society of Guides) and other local magnates, before whom the *guides-aspirants*, as they are called, are put through their facings. After questions are asked in arithmetic, geography, history, &c., the examination at which I "assisted" went on to deal with mountain-craft, on which subject the porters' ideas were even more peculiar than on other matters. One young man asserted, in perfect good faith, that if his *Herr* did not obey him, he should consider it his duty to beat him, while another calmly said that if he met with an obstacle on an ascent, the right course to pursue was to return home! At the conclusion of the examination, which all contrived in one way or another

to shuffle through, the *guide-chef* made a little speech, in which he exhorted the new guides to be an honour to their profession. I made notes at the time of the more amusing questions and answers, and these I have published in a former work.*

Having now considered the technical conditions which, combined, form a duly qualified guide, let us see what characteristics are required to place him in the front rank of his profession.

* "High Life and Towers of Silence," by Mrs. Main, published by Sampson Low, Marston, Searle, & Rivington.

CHAPTER II.

THE CAUTION AND DETERMINATION OF GUIDES.

AMONGST the qualities required in a first-class guide, I am inclined to rank caution as the chief. Many other characteristics are also necessary, such as a strong will, enabling the guide to compel those in his care to obey him; dash and courage, by which he overcomes obstacles; skill in climbing, as well as in forming an opinion of the condition of snow; ability in finding his way up or down a mountain, whether he has ever previously ascended it or not; coolness in moments of danger, promptness of action in a sudden emergency, resource in difficulties of whatever nature that may arise; strength of muscle, sound health, good temper, unselfishness, honesty, and great experience. What a catalogue! And yet I do not know one guide of the first order who does not possess something of all, and a large amount of several, of the many qualities which I have enumerated above, to say nothing of others which I have doubtless overlooked.

I should like first to tell you of some instances where guides have displayed a praiseworthy caution under strong inducement to overstep the bounds of prudence. One example, which I extract from "The Pioneers of the Alps," that mine of information on guide-lore, is very characteristic of the great guide Melchior Anderegg. Mr. Mathews writes: "He knows when it is right to go on, and when it is the truest bravery to turn back. 'Es geht, Melchior,' said a fine climber once in my hearing when we came to a dangerous spot. 'Ja,' replied Melchior, '*es* geht, aber *ich* gebe nicht;' or, in other words, 'It goes, but I do not go.'"

Edouard Cupelin of Chamonix, a guide with whom in former years I made many ascents, has frequently shown me that he possesses his right and proper share of this brave caution. Once in winter, when within an hour of the summit of Mont Blanc, he made us turn back, considering the danger of persisting in the face of a snow-storm unjustifiable, though the difficulties were all behind us. Once, too, I had hankerings after the Schreckhorn on a windy morning in October, but my guide reminded us of what the action of the storm on the friable rocks below the Saddle was likely to be, and refused to have anything to do with the peak, which showed

up every now and then in a tantalising way against a patch of blue sky.

But the caution of a good guide does not need to be proved by any collection of anecdotes. It is seen every time he prods for the hidden crevasse in crossing a snow-field. It is noticeable whenever he begs his companions (probably for the tenth time at least that day) to keep the rope taut. It is shown when he refuses to take a self-opinionated amateur up a difficult mountain in bad weather, or to allow the amateur's friend, attired in tennis-flannels, to join the expedition at the last moment, because "'Pon my word, I must do the Matterhorn some time or another, you know!"

A guide who has not a strong will can never hope to be quite at the top of the tree in his profession. Some guides, however, are, of course, more determined than others.

I remember an amusing tale *à propos* of this characteristic, which a friend told me of Joseph Imboden. The incident occurred on the Breithorn, an easy though fatiguing snow-peak in the Zermatt district. One cold day, Imboden had a leaden-footed, pig-headed Englishman in tow. This sagacious gentleman, when half-way up the mountain, observed that he was tired, and intended to

refresh himself by a snooze on the snow. Imboden naturally objected to the proceeding, explaining that it was extremely dangerous, and drawing vivid word-pictures of ill-starred persons who had been frozen to death. However, the traveller persisted, and finally, in reply to Imboden's repeated refusals to allow him to carry out his wishes, exclaimed indignantly, "I pay you, and you are my servant, and I shall do as I please!" The situation had become critical. Imboden saw that the time for strong measures had arrived. He said to his *Herr*, "That is quite true. Now you do as you choose, and I shall do as I choose. You lie down and sleep, and as surely as you do so I shall give you a box on the ear that you won't easily forget!" "What!" cried the irate tourist; "no! you would not dare!" "Oh, yes," said Imboden quietly, "and a thoroughly good box on the ear too!" The *Herr*, in a furious temper, plodded on to the top, and made no further suggestions for repose, but the whole way down he sulked and growled and would not be coaxed into good-humour. However, after dinner at Zermatt and a chat with his friends, things began to look different, and the same evening he sought out his guide, and shaking him by the hand, thanked him warmly for his conduct.

This recalls to my mind another little scene which took place on the same mountain, the account of which I had from an eye-witness. A guide, unknown to fame, but evidently resolute and determined of spirit, was hauling a panting, expostulating German up the snow-slopes between the Col St. Théodule and the Breithorn. When my friend, who was descending, met them, the German was piteously entreating to be taken home, declaring that he was nearly dead and had seen all that he wanted to see. "Why don't you turn back?" my friend inquired of the guide. "Herr," said that individual, "er *kann* gehen, er *muss* gehen—er hat schon bezahlt!" (Sir, he *can* go, he *must* go—he has paid in advance!)

Here is another little tale. Once upon a time a certain well-known guide was taking a traveller up the Weisshorn. The weather was abominable. In addition, the mountain was in very bad order, covered with ice and soft snow. The ascent had been long and tiring, and during the descent the gentleman (whose first season it was), worn-out with fatigue, completely lost his nerve. At last he exclaimed, "I cannot go on, I simply *cannot*." "You must," the guide said. "Indeed, I cannot go one step farther," the traveller replied. "Sir," the guide con-

tinued, "if we don't go on we shall be benighted on this ridge and be frozen to death, and that must not happen." Still the gentleman stood still as though turned to stone. The guide saw that his words had no effect; so making himself firm, he called out to the porter, "Pull down the *Herr* by his feet." The wretched Herr feebly glared at the porter, who demurred, saying, "I dare not, he will be so angry; besides, if I did, we should all slip together." "Very well, come up here, and I will take your place. See to yourself; I will be responsible for the rest," answered the guide, and he and the porter changed places. Now came the tug of war. Standing near the gentleman, the guide seized him by the collar of his coat and dropped him down a step. This he repeated two or three times, till the traveller, reassured by the firmness of the grasp and the decision of the act, gradually recovered his mental as well as his bodily balance, and before long he was able to help himself.

CHAPTER III.

SOME MORE CHARACTERISTICS OF FIRST-RATE GUIDES.

THOUGH it is a platitude to say that all good guides are plucky, yet some are more noted for "dash" than others. The names which at once come to the minds of most persons in connection with this characteristic would probably be those of, in the past, Michel Croz, Jean-Antoine Carrel, Johann Petrus, and a few others, and, in the present, Alexander Burgener, Emile Rey, Christian Jossi, and to mine, Martin Schocher. The three last names but one in my list are well known; that of Martin Schocher is less so. I must here make a slight digression in order to undertake a pleasant duty. In a former work, referred to before, I made some uncomplimentary remarks concerning Engadine guides.*

* In any remarks I have ever made which reflect on the Pontresina guides as a body, I need hardly say that those fine old men, the brothers Hans and Christian Grass, were quite outside my subject. They have now given up climbing; but only three years ago Christian made his hundredth ascent of Piz Bernina, which he took by the "Scharte," reaching the Fuorcla Prievlusa by a new and extremely difficult route from Boval.

Since then, however, Martin Schocher has come to the front, and has gained an amount of experience which no other Pontresina man can pretend to. Few expeditions of first-rate difficulty in the district have been made which were not led by him. On the three first occasions when the formidable ridge between Piz Scerscen and Piz Bernina was traversed, Schocher headed the party. The only time that the central west *arête* of Piz Palü was taken, he again led; and on the single occasion when Piz Morteratsch was climbed from the saddle between that peak and Piz Prievlusa, the party consisted of Schocher and Mr. Garwood only. Of this ascent Schocher declares that it was the hardest piece of work he ever undertook, consisting as it did of smooth rocky slabs, steeply inclined, and narrowing very often to the merest knife-edge.

During the past autumn Schocher for the first time left his native district, and went to the chief climbing centres of the Alps (the Oberland and Dauphiné excepted). The party were fortunate in their weather, and ascended the Dent Blanche, the Aiguille de la Za, and several other first-class peaks. If Schocher were to travel for another season or two, he would gain enough experience to place him on a par with some of the best men in the Oberland.

A fine rock-climber, a marvellously good and rapid step-cutter (his steps being large, well shaped, and exactly in the right place), of powerful build, and very willing and cheerful, Schocher is an ideal guide, and a credit to Pontresina. There are one or two young guides in the place who show promise, and Klucker of Sils is a host in himself; so the Engadine may fairly be congratulated on its progress in this respect during the last six or eight years.

Though Chamonix guides have deservedly acquired a reputation for their skill on ice and snow, yet, oddly enough, it is a St. Nicholas man who is said to most excel in this branch of mountain-craft. In the biography of Joseph Imboden in "The Pioneers of the Alps" Mr. Barnes writes: "His (Imboden's) judgment as to the state of the snow is excellent, and may be implicitly relied on." Sometimes, when climbing with this guide, I have expressed my fears of possible avalanches, and he has invariably, by a joke or one of those biting sarcasms which his soul loveth, banished my fears; for his wonderful quickness in noting exactly when and where the snow is safe, and when or where it begins to show a tendency to slip, would restore confidence to any one, however timid.

I have many times watched, with ever-increasing admiration, how a couple of first-class Chamonix guides will work their way through a perfect maze of *séracs* and crevasses and other obstacles incident to the wild chaos of an ice-fall. I have twice been through the *séracs* of Géant at night, starting at 11 P.M. from Montanvert, and accompanied by Michel Savioz, then a porter. He threaded his way round crevasses, over snow-bridges, and up and down *séracs* as if he was accustomed to going backwards and forwards nightly over the pass; and, on many other occasions, it has been a real delight to me to watch from the rear of the caravan the perfect confidence and ease with which these masters of their art grapple with the difficulties of a broken glacier. I was particularly struck some years ago by the skill and "dash" displayed by two of my guides, Auguste Cupelin and Alphonse Payot, in forcing a passage across the upper plateau of the Glacier de la Brenva. We had mounted in the morning to a bivouac on the moraine of the glacier, where, under a large boulder, we hit upon the remains of an old encampment, which had probably been the sleeping quarters of the three or four parties who had made or attempted different excursions from this point. We deposited our knap-

sacks and rugs, lit a fire with the wood which we had collected lower down, and then, after despatching a hasty meal, the two guides set out to make tracks across this formidable glacier. Our object, on the morrow, was to attempt the ascent of the Aiguille Blanche de Peuteret, but as some of the previous parties had spent hours in getting over the glacier which lay between our bivouac and the peak, my guides wisely decided to make a track over it that very afternoon, and thus, by having our way mapped out in advance, to save several hours in the morning. The reader may wonder why, in order to gain time, we did not shift our night-quarters to the other side of the glacier. This we should certainly have done if we could have found even the smallest piece of rock to take up our abode on, but snow was over everything, and therefore we had no choice but to remain on the left bank of the glacier. As I sat on a huge stone overlooking the ice, armed with a telescope, I could watch all my guides' movements. One moment Auguste would make a rush at a great lurching *sérac*, the next he would have scrambled to the top, and be ready to step down the other side whilst Alphonse tightened the rope. Then I would see him clear, with a frantic spring, a yawning chasm,

and turn and draw in the cord as Alphonse followed his example. Now both would disappear, soon to come into sight again, and seeming to rise out of the depths of the glacier, and Auguste would fall to work with his axe, hacking steps up a glassy wall until he conquered it. And so they worked on, ever progressing towards their goal, whilst I sat engrossed in watching such a brilliant display of ice-craft. It was dark before they returned, and I am sure my reader will sympathise when I tell him that, in spite of all this toil, we were unable to do the Aiguille (then an untrodden peak) the next day. We started about 1 A.M., traversed the glacier, and mounted the steep snow-slopes beyond; but the weather, which was slightly cloudy when we set out, grew gradually worse and worse, till at last heavily falling snow compelled us to abandon our attempt, and in terribly low spirits we retraced our steps to our bivouac, gathered together our baggage, and sulkily descended to the valley. We crossed the Col de la Seigne that afternoon, and next morning, in lovely weather, but through a sprinkling of lately fallen snow, went over the charming little snow-pass of Mont Tendu to St. Gervais, and thence by Chamonix home to Montanvert.

CHAPTER IV.

MORE ABOUT GUIDES.

It has often been a matter for discussion whether the talent of path-finding, or, more often, of discovering a possible route when no semblance of a path exists, comes from instinct or from training. It seems to me that it usually proceeds from something of both, though especially from the latter. Those who would confine this power to instinct pure and simple, bring forward as an argument on their side the fact that hardly any amateurs possess it to a great degree, and none to the extent exhibited in a first-rate guide. But they forget that people in our own class cannot by any possibility have the early experience of Swiss peasants, many of whom are accustomed from childhood to scramble about in all sorts of difficult and perilous places, and are often taken by their fathers and neighbours for lengthened excursions on mountains and glaciers, either during hunting expeditions, or sometimes, with the kindly permission of a traveller, as porters. I remember,

on one occasion, Peter Taugwalder asking me to allow his son, then aged fourteen, to go with us up the Breithorn, and most efficient did the little fellow prove himself, insisting on carrying my camera a good part of the way. Imboden's eldest son, Roman, had at fifteen made quite a number of first-rate ascents with his father, including the passage of the Ried Pass (twice), of the Alphubel, the ascent of the Balfrinhorn, Brunegghorn, and other big peaks. When, in 1887, I took him up Piz Kesch, I noticed that his "form" had already attained to a point which few amateurs could beat. The manner in which a first-rate guide will find the way in darkness, a thick fog, or a snowstorm is really marvellous. In descending Mont Blanc in January, we were in a thick fog from the moment we turned at the top of the Mur de la Côte, and it was pitch-dark before we were fairly off the Grand Plateau. Yet on the guides went, with a cheery, confident air about them, never hesitating for a moment, and only halting twice, the first time to root out a knapsack of provisions, left on the Grand Plateau that morning, and since buried in the thickly falling snow, and the second time, at my request, to light the lanterns when, within half an hour of the Grands Mulets, I awkwardly walked into one of the crevasses

across which we had to pass. Again, in coming down at the end of November from the Aiguille du Tour to the Cabane d'Orny, darkness overtook us. Before beginning the descent of the Glacier d'Orny, I suggested that our lantern should be made use of; but the guides laughed, and breaking into one of the songs of the district, trotted unhesitatingly down the ice, in and out amongst the crevasses, and at last up to the door of the hut, which was so deeply buried in snow as to be hardly distinguishable. Indeed, the little cabin is at all times hard to find, and Chamonix sometimes confidentially whispers how an ex-guide and a friend, after crossing the Col du Tour, entirely failed to discover the hut, and, after much poking about, returned over the pass to Chamonix!

Another example of path-finding which greatly struck me was during a descent in the dark of the Italian side of the Matterhorn. We had the moon a good part of the time, but often, owing to the conformation of the rocks, we were in utter darkness, and Alexander Burgener would rummage about for a bit, then seize on the commencement of one of the fixed ropes, and, with a series of his characteristic grunts and snorts, work his way down it. He never missed the right route for an instant, though the mountain was in a very bad state from the amount

of ice and snow on it. One more incident before we pass on to the consideration of the next of the qualities which I have noted. Some years ago, during the month of January, I found myself with Edouard Cupelin (of Chamonix), and a couple of local guides, in the long *couloir* which leads from the Sella Pass towards the first peak of Piz Roseg. A discussion arose as to the best route to take, the local guides advising our bearing to the left, and Cupelin recommending keeping to the right. The latter's opinion, as leader, of course prevailed, and though he had never been in the Engadine till the day before, we cheerfully followed him. On reaching the plateau above, it became obvious that we had saved both time and trouble by selecting this route, which, indeed, we afterwards found was the one usually taken.

Pontresina guides have gone rapidly ahead since then, and it would now be hard to beat, say, Martin Schocher as a rising guide.

Now let us travel from the Engadine to the Bernese Oberland, and I will tell you of an occurrence there which made much stir amongst the few who heard of it, but an account of which did not, as far as I know, reach the ears of the Alpine world.

Again Joseph Imboden must come to the front,

and never did he more deserve applause than on this occasion.

One morning in August, two parties set out from the Eggischhorn to cross the Mönch Joch to Grindelwald. One of them consisted of an Englishman accustomed to climbing, accompanied by Imboden and a good, steady porter. The second party comprised two Englishmen and a guide and porter, all of whom were more or less lacking in the qualities so conspicuous in party the first. In descending the slopes above the Bergli Hut, the second party was leading, and the position was as follows. Just below was a deep *bergschrund*, or large crevasse, approached by a slope of ice, down which the guide was cutting steps. Behind him was one of the travellers, then came the other, and last on the rope, and in a desperate state of apprehension at the sight of the horrors beneath, was the porter. The other party, in which, most providentially, Imboden was first on the rope, was close behind—in fact, Imboden himself was only separated by a distance of about a couple of feet from the other party's porter. At this particularly auspicious moment, it occurred to the gentleman on the ice-slope to stick his axe into a neighbouring patch of snow, nearly out of his reach, and to take off his spectacles for

the purpose of wiping them. Hardly had he commenced this operation, than, to his horror, the guide, who was cutting below, slipped. The gentleman of the spectacles followed suit, so did his companion behind, and so, with a wild cry of "Wir sind alle verloren!" (We are all lost!) did the porter. But hardly had he lost his footing when, in calm, clear tones, came the remark from behind him, "Noch nicht!" (Not yet), and he felt himself arrested and held back. What actually occurred was this (I had it from the gentleman whom Imboden was guiding, and who, from his position behind and above him, had the best possible view of the situation). When Imboden saw the spectacle-wiping begin, he instinctively scented danger, and hooked the cutting point of his axe through the rope which was round the porter's waist. Immediately after, if not simultaneously, the slip took place, and the whole strain of the weight of the foremost party came on Imboden. However, he was firmly placed, and held without difficulty till they recovered their footing. But for Imboden's coolness and quickness, a very serious, and most likely a fatal accident would have occurred. Two or three days afterwards, while ascending the Eiger with Imboden, I questioned him about this incident. He took his extraordinary per-

formance entirely as a matter of course, and declined to admit any merit in it. I fear that the two Englishmen (or rather the spectacle-man) hardly realised the escape they had. Well, it is not for a mere matter of thanks or reward that men do deeds such as this, though I can vouch for it that a few warm words of gratitude are far more valued than a mere pecuniary manifestation of the same.

A good guide is usually able to turn his hand to most things, and has generally plenty of resource in unforeseen difficulties of all kinds. In short, he is ever ready to rise to the occasion, no matter what it may show of the unexpected. Many a guide with whom I have travelled has combined the qualities of an excellent cook, a lady's-maid (!), a courier, and a first-rate carpenter, with those of a pleasant companion and the special characteristics of his profession. In proof of the above, I may remark that a little dinner in a hut is often a meal by no means to be despised, the ingenuity displayed in cooking with next to no appliances being really wonderful. As to the packing of one's garments, I have been more than once informed that the way in which I fold dresses leaves much to be desired, while an incident connected with this subject, which took place some years ago, is still vividly impressed on

my mind. When paying my bill at a certain hotel, an item of 150 francs for a broken piano-string had aroused my indignation. In the first place, the string had been broken by the frost; secondly, 150 francs was a preposterous charge. I promptly left the hotel in disgust, and accomplished my departure in a very short space of time, thanks to my guide, who valiantly helped by packing dresses and hats, boots and shoes, with unhesitating rapidity, and, what is more, they were as wearable when they emerged from my trunk as when they went into it. I was much amused, during an ascent some years ago, to see my porter produce a needle and thread and solemnly commence to repair a rent in my climbing skirt. I cannot say that the work was very fine, but it held together as long as ever that garment lasted.

There are several incidents which I should like to mention in connection with that strength of muscle with which nature and training have supplied some guides to a very remarkable extent.

Perhaps one of the most notable instances of great strength being put forth at exactly the right instant was the following, which was described to me by Miss Lucy Walker as having happened to her brother, Mr. Horace Walker.

The latter, accompanied by Peter Anderegg, was ascending a steep wall of ice. The guide went first, cutting steps. The way was barred by a big piece of rock, apparently firmly frozen into the ice-slope. While Mr. Walker stood just below the boulder, Anderegg worked to the side round it. Reaching its upper level, he placed one foot on the great mass, which, to his horror, at once began to move. To cry out and warn his companion below would have been to expend far too much time; there was but one way of saving Mr. Walker's life, and that he promptly took. In an instant he had stepped back on to his last foothold, and with a terrific jerk had swung Mr. Walker out of his steps and along the slope. Immediately after, the huge stone thundered down the slope, across the place occupied till a moment before by Mr. Walker. This, I think, is the most wonderful thing of the kind I ever heard of.

Another very striking instance of strength promptly put forth took place on Piz Palü, a mountain in the Bernina group, during an ascent by Mrs. Wainwright, Dr. Wainwright, and the guides Christian and Hans Grass. I extract the following from Dr. Ludwig's capital little book, "Pontresina and its Neighbourhood."

"In 1879 an accident happened on Piz Palü, which had a similar cause, and nearly had a similar fatal ending, with the accident on the Lyskamm two years before. The middle and the western summits are joined together by a narrow ridge; on the side of the Pers Glacier (the north) the frozen snow (*firn*) forms, in parts, an overhanging cornice. Mr. W. and his sister-in-law, Mrs. W., with the two veteran guides, Hans and Christian Grass, had ascended the highest summit, and were on their return; Christian Grass leading, then Mr. W., Mrs. W., and last, Hans Grass. There was a thick fog. The first three of the party stepped on to the cornice; it gave way suddenly, and all four would have been dashed down the face of the ice-wall, which there falls sheer some two thousand feet, had not Hans Grass had the presence of mind and the bodily activity and strength to spring at once to the opposite side of the ridge and plant his feet firmly in the snow. Fortunately Mr. W. had not lost his axe; he gave it to Christian Grass, who in this awful situation untied himself from the rope, and cut his way up on to the ridge, where his brother and he, joining forces, were able to bring Mr. and Mrs. W. into safety."

What a fearful moment of suspense it must have

been when Mr. W. dropped his axe to the guide below, who, if he had failed to catch it, would have lost the last chance of saving the party.

An accident very much resembling that on Piz Palü occurred on August 18, 1880, on the Ober-Gabelhorn, near Zermatt. In this case, as on the Palü, no lives were lost, thanks to the prompt action of one of the guides, Ulrich Almer. I extract the following account of the event from Ulrich's book:—

"We attacked the mountain direct from the Trift Alp, and had scaled the steep rocks and reached the eastern *arête*, along which, at a distance of about twelve yards from the edge, we were proceeding, when a huge cornice fell, carrying with it the leading guide, Brantschen, and the two voyagers. Almer, who alone remained on *terra firma*, showed extraordinary strength and presence of mind. Instantly on hearing the crack of the cornice, he leaped a yard backwards, plunged his axe into the snow, and planting himself as firmly as possible, was thus enabled to arrest the fall of the entire party down a precipice of some 2000 feet. Joseph Brantschen, who fell farthest down the precipice, dislocated his right shoulder, and this mischance involved a long, and to him most painful descent, and the return to Zermatt took us eight hours, the

injured man being obliged to stop every two or three minutes from pain and exhaustion. It should be mentioned that the mass of cornice which fell measured (as far as we can judge) about forty yards long by thirteen yards broad.

"Mr. C. E. Mathews, president, and other members of the Alpine Club, went carefully into the details of the accident, and gave their verdict that, according to all the hitherto accepted theories of cornices, we were allowing an ample margin, and that no blame attached to the leading guide, Brantschen. . . . There can be no doubt whatever that it is owing solely to Ulrich Almer's strength, presence of mind, and lightning-like rapidity of action that this accident on the Gabelhorn did not terminate with the same fatal results as the Lyskamm catastrophe.

(*Signed*) H. H. Majendie, A.C.
Richard L. Harrison."

As a practical proof of their gratitude to Almer, I understand that these gentlemen gave him a cow.

CHAPTER V.

FURTHER ANECDOTES OF GUIDES.

ENDURANCE is absolutely necessary in a guide undertaking first-class ascents. It is simply astounding how much fatigue a guide will go through without any symptom of giving in. One one occasion, Alexander Burgener, having returned to Zermatt after fourteen hours' climbing, left with me the same evening, and put in another forty-three hours' exertion (relieved by one halt of two hours on an exposed ledge while waiting for the moon), almost "without turning a hair." The porter, too, had participated in both ascents, and though certainly fatigued on our reaching Zermatt, was still far from prostrate.

I have known Martin Schocher go up Piz Bernina five times in one week, taking an "off day" on Piz Palü" on the other two days; and amongst the long excursions which I have made with guides who, on their return, declared that they felt quite fresh, may be mentioned the Dent du Géant, twenty-three

hours; Aiguille du Midi (winter), twenty hours; Col d'Argentine (winter), twenty hours; Finsteraarhorn, up and down by Agassiz-joch (following an ascent of the Schreckhorn the day before), twenty-three hours.

It is when a party encounters bad weather or is benighted in an exposed situation that the endurance of a guide is most put to the test. Some years ago a party consisting of Mr. Howard Knox and a German gentleman, with Peter Dangl of Sulden and Martin Schocher of Pontresina, were benighted on the *arête* of Piz Scerscen. The German was almost unconscious from cold and fatigue, and Mr. Knox, too, was worn-out from want of sleep. The guides during the entire night never ceased rubbing and attending to the German, and from time to time Schocher took Mr. Knox in his arms and allowed him three or four minutes' sleep, which refreshed him much more than would be expected from the short time during which it was safe for him to indulge in it. At daybreak, Schocher led the party in magnificent style down an entirely new route to the Scerscen glacier, and brought them all safe and sound home to Pontresina the same afternoon. The final splendid piece of guiding of Jean-Antoine Carrel in 1890, when, after two days'

confinement by bad weather in the upper hut on the south side of the Matterhorn, he, after twenty hours' fearful toil, got his party safely out of all their difficulties, and then laid down and died, is one of the most pathetic incidents in Alpine history.

Referring to this, Mr. Whymper wrote in the *Alpine Journal*, "It cannot be doubted that Carrel, enfeebled though he was, could have saved himself had he given his attention to self-preservation. He took a nobler course, and, accepting his responsibility, devoted his whole soul to the welfare of his comrades, until, utterly exhausted, he fell staggering on the snow. He was already dying; life was flickering, yet the brave spirit said, 'It is *nothing*.' They placed him in the rear to ease his work; he was no longer able even to support himself; he dropped to the ground, and in a few minutes expired."

An extraordinary case of endurance came to my notice a short time ago, when turning over the leaves of some old numbers of the *Alpine Journal*. It is not connected with guides, and thus is perhaps out of place here. Still, as my object in this little work is rather to interest my readers than to aim at a careful classification of subjects, I shall quote the account for their benefit.

"The same number of the same work (*i.e.*, the *Bulletino Trimestrale*, Nos. x. and xi.) relates an Alpine misadventure so extraordinary as to deserve notice, and so incredible as hardly to seem worthy of it. But it is equally out of the question to suppose that the organ of the Italian Alpine Club is itself guilty of a hoax, or that it could be hoaxed in a matter verified by the signature of three Italian gentlemen of station, by a public subscription, and by an official document. This premised, we give the following narrative, greatly condensed from the Italian.

"A party of young men, who had been employed on the Fell railway over the Mont Cenis, took their way home, about the middle of October 1866, over the Col du Collarin to the Piedmontese valley of Ala. Near the top, still on the Savoy side, one of them, named Angelo Castagneri, slipped, apparently on the edge of the *bergschrund*, and disappeared. His companions, instead of returning for help to the village of Averolles, little more than an hour distant, seem to have been possessed with the notion that a man down in a glacier was past help, and crossed the col to Balme, the first village where Castagneri's parents lived. They took it coolly, for it was a week before anybody went to look for him, and then the

father, descending by help of a ladder, found him lying on the wet earth beside a clot of blood, which had flowed from a wound in his head, and still alive. It took nine or ten hours to get him home, using the ladder as a litter, and many days elapsed before he was seen by a medical man." The account goes on to say that it was nine months before he was taken to Turin and placed in a hospital there, where his legs, from which he had lost his feet from frost-bite and subsequent mortification, were healed, apparently without amputation. Castagneri says that he had no recollection of anything from the time of his fall until aroused by his father's voice and touch. In that case he lay senseless between eight and nine days, and probably owed his life to his insensibility.

The subject of the manifold kindnesses and acts of unselfishness shown by guides, both to their employers and also to each other, is so wide a one that I can only touch on it in a most superficial manner. I well remember, some years ago, hearing of a very kind act of Melchior Anderegg's. The party had ascended the Dent d'Heréns, and, in returning, Ulrich Almer was struck and badly hurt by a stone. It was impossible to get him down to Zermatt that night, and several hours had to be spent, while waiting for daylight, sitting on the rocks. It was

extremely cold, and Melchior took off his coat and wrapped the wounded man in it, remaining all night in his shirt-sleeves.

In my work "The High Alps in Winter," I have related how my guides, while I was asleep in the Cabane d'Orny (near the Orny Glacier), took off their coats and covered me with them, so that I might not feel cold, while they sat up all night brewing hot tea, and vying with each other in stories of chamois hunts.

Experience every good guide must have. Here is an anecdote showing how one member of the profession acquired it. This guide, now well known and in the first rank, began his career with two Germans as his victims. The party were bound for, I believe, the Cima di Jazzi, and when the ice of the Gorner Glacier gave place to snow, the moment came for putting on the rope. The guide felt greatly puzzled; and he was slow of thought. Meanwhile the two gentlemen, as ignorant of mountain-craft as their guardian, stood by and watched the cord being slowly uncoiled. At last the guide took a sudden resolution, and making a loop at each end of the rope, he slipped it round the necks of his two charges, and taking the cord in the centre, held it in his hand, having just

enough native wit not to tie it round his own neck! In this frightfully dangerous condition they remained during the entire ascent. When returning, another party was seen approaching. The guide halted on finding that it was led by a friend of his. He took him aside and said, "Tell me, how ought people to be roped? Have I not done it correctly?" The other guide replied, with inward merriment, "Oh, yes, it's quite right!" Whereupon his friend exclaimed, "And yet I assure you the gentlemen have sworn at me all day!" So much for that pleasing operation known as "buying experience."

The guide who has had the greatest amount of experience in the Alps is, I think, Christian Almer, if by experience we mean making a large number of different ascents and excursions. The Oberlanders travel out of their own district more than any other guides; next to them probably the Saas and St. Nicholas men; then some of the Chamonix guides (though not many). Peter Dangl of Sulden, Tyrol, and several of the Valtournanche men are also to be met with *en voyage*, the former very frequently.

In closing the subject of guides, I will only add that I trust these little details of my experience

of them and that of others may have helped some to better realise what a splendid body of men they are, and how much may be learnt in knowing them well, and in the constant intercourse with them which every climber enjoys. I have tried to show that the upper grades of the profession are not a number of self-seeking, ignorant, unprincipled peasants, who regard all travellers as their lawful prey, but a set of courageous, noble-minded men, often conspicuous in intellectual qualities, and in many ways unique as a class.

CHAPTER VI.

ALP LIFE.

Do you know, my readers, what an alp is? Perhaps the question seems trivial to you, and you feel inclined to reply indignantly, "Of course!" Well, perhaps you are right; but still I am going to describe an alp, for it is also very possible that you are wrong. As to what an alp is not, I will begin by stating most emphatically that it is not a mountain, that it is not snow-covered in summer, and that it has nothing whatever to do with those incidents of nature spoken of in guide-books as "the Alps." An alp is written with a small *a*—this is one distinction. It is a pasture tenanted in summer by cows, goats, and huge black pigs, and young men and maidens to look after the same, consequently it is not snow-covered except in winter, and as it supplies the animals with beautiful and nourishing grass, it presents a very different aspect to the rocky and ice-clad sides of the Alps (with a large *A*).

During the long winter months, the cows, which are of such value to the Swiss, are kept in hot, often stuffy, stables in the villages, and only taken out every day for water. It is a familiar sight to winter visitors in the Alps to meet these animals in the village street, plunging and galloping about in the enjoyment of a few breaths of fresh air on their way to drink at one of the many troughs with which even the smallest of Alpine hamlets is so liberally supplied.

Towards the beginning of May, the cows are taken from their stables and driven to the lower alps. These alps constitute a great source of wealth to the country. Many owners of large herds of cattle have as many as three, situated at different altitudes on the mountain-side. It is to the lowest that the cows first go, and by the time its rich pasturage has been fully enjoyed and considerably diminished, the snow will have melted from the slopes above, and thither the herd pursues its way. By the middle of June, or later, the highest alp is gained, and there the animals remain till the early autumn approaches. Then they descend, halting for a month or so at the intermediate stations, till the end of October sees them once more established in the valley for the winter.

The day on which the cows depart for the alps is fêted with great rejoicings in most Swiss villages, and doubtless in olden days it must have occurred earlier in the season than is now the case, for the 1st March is still kept as a festival dedicated to the turning out of the cows into the meadows, and if the valley was clear of snow by March 1st, the lower alps must surely have been habitable by April.

An interesting account, by Herr Bavier, of the 1st March rejoicings, appeared in the *St. Moritz Post* for March 10, 1888, and I think that my readers will wish me to reprint some of it. Herr Bavier, under the heading of "Chalanda Mars," writes:—

"What is the Chalanda Mars? almost all my readers will ask. Here it is the children's greatest fête, and in every village, no matter how small, the Chalanda Mars is celebrated with as much splendour as possible. For hundreds of years it has been the custom for heads of families to contribute a certain sum, which is put at the disposal of the schoolmaster, and with it he procures a supply of cream, cakes, sweets, and other things dear to the youthful palate. On March 1st (Chalanda, viz., 'beginning'), the principal scholars of

the village school go about the streets, ringing big cow-bells, cracking whips, and singing—

> 'Chalanda Mars, Chaland Avrigl,
> Lasché las vaschas our d'nuigl,
> Cha l'erva crescha
> E la naiv svanescha,'

which means,

> Beginning of March, beginning of April,
> Bring forth the cows from their stables,
> For the grass is growing,
> And the snow is going.

"During their procession through the village, the youngsters collect chestnuts, or any other dainty offered by the listeners to their music, and on the Sunday following these treasures are placed on a gorgeous sort of 'buffet,' and all the village children, even the babies, are invited to help themselves. After supper, a dance helps to further enliven matters, and to make the little folk look forward impatiently to next year's 'Chalanda Mars.'"

The herd, consisting perhaps of animals belonging to twenty or more different persons, on its departure for the mountains, is headed by the largest and finest of the cows. She is decorated with the best and deepest-toned bell, and at every march she never fails to place herself in front of

all her companions, and when, through old age or sickness, she loses her superiority, and her bell is transferred to the neck of another animal, she sometimes abandons herself to such lowness of spirits as seriously to impair her health.

Tschudi relates that on one occasion, when the herds were preparing for the descent from the upper alp of Bilters, he noticed a furious combat between two cows, and on his inquiring the reason, the herdsmen told him that one of the cows had borne the great bell during the ascent, but that it had been transferred from her neck to that of a still finer animal during their sojourn on the alp. The first cow, having heard the tones of her old bell, had come from a great distance, and on her arrival had immediately shown fight, in revenge for the loss of her former privilege.

After the leader of the troop follow those of next importance, and it is said that every time the purchase of a new animal adds to the herd, the last arrival engages each of the cows in turn in battle, and the result of the fights determines her position amongst her companions. The bells carried by the cows are sometimes so large as to measure a foot in diameter, and cost in some instances as much as eighty or a hundred francs.

The cows are accompanied to their summer quarters either by a girl, who is known as a *Sennerin*, or by a cowherd, or *Senner*. It is often imagined that these peasants enjoy a life of romantic idleness, lying on the emerald-green turf, surrounded by snow-clad glittering peaks, and making the cliffs re-echo to their jodels or the "Ranz des Vaches."

I may here add, that, according to Dr. Forbes, the name of the "Ranz des Vaches" is derived from the "rang" or range in which the cows stand to be milked, the "Ranz des Vaches" being usually sung by the peasants on their departure for the alps. However, in a work by H. Szadrowsky entitled "Music and the Musical Instruments of the Dwellers in the Alps" (1868), the derivation of *Ranz* is said to be from *ranner*, to shout (Swiss-Romansch), and the "Ranz des Vaches" from *Reihen* or *Reigen*, a song. In truth, the existence of the peasants who inhabit these alps is by no means a lazy one. Up before break of day—I have often seen them astir by 3 A.M.—they must let their cows out of the shelter in which they have passed the night. If any of the animals are ill, they must be attended to. Twice daily they must be milked, and cheese-making is an important and arduous portion of the day's routine.

In the Engadine, and, in general, all over the Grisons, the alp huts are built of wood or solid stone, and are comfortable and commodious, and good shelter is provided for the cattle. In many parts of Valais, on the contrary, the rough stone huts of the cowherds, so low that an upright position cannot, in some cases, be maintained, are but miserable, hastily-built hovels, the walls consisting of stones piled one on another, regardless of intervening gaps, and a roof of rocky slabs covering the wretched structure. The cows are entirely unprovided with shelter on many such alps, and often when passing through mountain pastures at night, I have been startled by suddenly stumbling over a warm mass slumbering in the long dewy grass.

The highest pastures are usually to be found at about 7500 feet, but at the Riffel above Zermatt, cows are to be seen grazing above 8000 feet, and on the south slopes of the Italian side of the Alps they go still higher. In several parts of Switzerland, the cows, in order to gain their summer quarters, must cross the ice of the glaciers, and at Montanvert, above Chamonix, they may be seen in June and October traversing the Mer de Glace.

Two distinct kinds of cattle are found in Switzerland. The one is to be seen in the districts between

the Lake of Constance and the east boundary of Valais, while the west is occupied by a different sort. The former is easily distinguishable, being of a uniform brown, sometimes dark in shade, sometimes light, while the other is white with black or yellow patches, sometimes being entirely red or black, with only a white mark on the forehead. The first of these two varieties, it has been noticed, is heavier or lighter, according as it inhabits the lowlands or the higher valleys.

The heaviest and finest of these animals are to be found in the Canton of Schweiz, and attain a weight of twenty to twenty-five quintaux. Of the latter sort, the best specimens inhabit Bulle, Romont, and Eastern Switzerland in general. These animals are the heaviest of all.

For further information on "Alp Life," I refer my readers to Tschudi's "Monde des Alpes."

CHAPTER VII.

THE CHAMOIS.

AMONGST the animals met with in the Alps, there is none so interesting to the traveller as the chamois. The reason for this is not far to seek, for the animal is sufficiently rare to excite both the curiosity and the imagination, while its pursuit is known to be so difficult and often dangerous, that it has frequently been described as "mountaineering without a rope." Thus a glamour of romance is thrown over the whole subject.

Chamois-shooting in Switzerland is only allowed during one month of the year, September. It is seldom indulged in, in this country, by foreigners, as there is a great deal of difficulty in obtaining a license. Indeed, it can only be had after the stranger has taken out a *Niederlassung* (which gives many of the rights of naturalisation without loss of those of the free-born Briton), and this is both a troublesome and a tedious process, besides entailing a residence of some time in Switzerland.

There are several other plans, however, by which the ardent sportsman works his will. One of these is simply to go and shoot, and, disregarding all monetary considerations, pay a heavy fine for each chamois secured. At what period, however, the Swiss authorities would pronounce the offender against their laws incorrigible, and introduce him to the interior of one of their prisons, I do not know.

A third course, and the one usually followed, is for the foreigner to accompany a native who is armed with a license and a gun for his own use. I will not affirm that in the excitement of the chase the latter does not sometimes change hands.

Hampered by a rifle, and minus the help of the trusty rope and ice-axe, chamois-hunting calls for exceptional activity and endurance. Most Englishmen who go in for the sport make their headquarters in the Italian Alps, where the Government regulations are less stringent than in this country.

The Engadine contains large herds of chamois, and one can see thirty or forty almost every day in summer feeding on the slopes of Piz Tschierva, opposite the Roseg restaurant. This is no doubt because that part of the Engadine has been strictly preserved for some years.

For the benefit of such of my readers as have

never seen a chamois, I extract the following description of one from Mr. Baillie Grohman's brightly written little work, "Tyrol and the Tyrolese."

"Somewhat larger than a roedeer, a chamois weighs, when full grown, from forty to seventy pounds. Its colour, in summer of a dusky yellowish brown, changes in autumn to a much darker hue, while in winter it is all but black. The hair on the forehead and that which overhangs the hoofs, remains tawny brown throughout the year, while the hair growing along the backbone is in winter dark brown and of prodigious length; it furnishes the much-prized 'Gamsbart,' literally 'beard of the chamois,' with tufts of which the hunters love to adorn their hats. The build of the animal exhibits in its construction a wonderful blending of strength and agility. The power of its muscles is rivalled by the extraordinary facility of balancing the body, of instantly finding, as it were, the centre of gravity."

Most districts of the Alps have their famous chamois-hunters; but, according to Tschudi, the most celebrated of all was Jean-Marie Colani of Pontresina. It is said that he kept about 200 chamois, half-tamed, on the hills near his home. Each year he shot sixty males or so, calculating on about the same number of young ones being

born every season. He would not tolerate any strangers in the district, and the Tyrolese especially suffered much at his hands. It was popularly related at Pontresina that he had a room in his châlet decorated with foreign hunting implements, which he had taken from those whom he had killed, the number of his victims being estimated at thirty. Of course this was a gross exaggeration, and A. Cadonau, an old chamois-shooter of Bergün, asserted that Colani only killed one Tyrolese hunter whom he found on Swiss ground near Piz Ot; but he tells that one day he met Colani unexpectedly, and the latter took deliberate aim at him, only lowering his weapon when he recognised his friend.

It is said that on one occasion Colani killed three chamois grouped together with one shot, and many anecdotes are told of him, most of which are by no means to his credit. From the time he was twenty years of age till his death, Colani killed 2600 chamois. This figure has never been reached by any one else. Colani's death in 1837 was caused by over-exertion, he having undertaken for a bet to mow a piece of land in the same time that it would take a couple of the best Tyrolese mowers to accomplish a like amount.

The Grisons have had other famous chasseurs,

amongst whom may be mentioned J. Rüdi of Pontresina and Jacob Spinas of Tinzen. The latter began to hunt at twelve years old, and, in a career of twenty-two years, shot 600 chamois, besides securing every season forty to fifty hares, about sixty marmots, some hundred or more partridges, a dozen foxes or so, and in a single day catching trout to a weight of fifteen to twenty pounds.

The largest herd of chamois Spinas ever saw numbered from sixty-five to sixty-eight head. Spinas contested that he was only surpassed as a hunter by one other man in the canton, namely, B. Cathomen of Brigels.

Other noted chamois-hunters, inhabiting Val Bregaglia and the neighbouring valleys, are Giacomo Scarlazzi of Promontogno, who has shot as many as five chamois in a day and seventeen in a week, and Pietro Soldini of Stampa. The latter, up to 1887, had killed 1200 to 1300 chamois, of which he shot forty-nine in one autumn. J. Saratz of Pontresina was also a famous chasseur, and the three brothers Sutter of Bergün must not be forgotten. Amongst them they shot 1700 head, in addition to which Mathew Sutter has killed a bear, a læmmergeier, and often in a day eight to ten

ptarmigan. He has only seen three lynx, but has never shot one.

October 1852 was a fatal time for chamois-hunters, three of whom, including the famous guide Hans Lauener, were killed during that month. The saying that more chamois-hunters are killed while engaged in their favourite sport than die a natural death has, unfortunately, a good deal of truth in it. Sometimes the chasseur, overcome by fatigue, falls asleep in some cold and exposed spot, never to wake again. Sometimes he is mortally wounded by falling stones, or struck by lightning in a thunderstorm. Often he is killed by avalanches, and if, when on difficult ground far from home, he is overtaken by a thick fog, his position becomes most perilous. He may wander for hours without nearing the valley; he may slip down a precipice concealed by the mist; he may give in to utter exhaustion. The diminution of the chamois within the last fifteen or twenty years also makes his task much harder, and he may spend days without being able to approach, or perhaps even without seeing one.

A pretty anecdote of a chamois is told by Dr. John Forbes in his work "A Physician's Holiday." He says that in the year 1843 the proprietor of

a large flock of goats on the Great Scheideck had rendered a chamois so tame, by training it almost from its birth, as to get it to mingle in the herd with its more civilised cousins, and to come and go with them to and from the mountains with perfect docility and seeming content. Like most of its companions, it was decorated with a bell suspended round its neck. After following for three successive seasons this domestic course, it all at once forgot the lessons it had learnt, and lost its character as a member of civilised society for ever. One fine day, when higher up the mountains than was customary for the flock, it suddenly heard the bleat of its brethren on the cliffs above, and pricking up its ears, off it started, and speedily vanished amid the rocks, whence the magical sounds had come. Never from that hour was the tame chamois seen on the slopes of the Scheideck, but its bell was often heard by the hunters ringing among the wild solitudes of the Wetterhorn.

It is only when the chamois has lost, through disease, that amount of intelligence with which it is gifted by nature that it will abandon its mountain home and seek the haunts of man. Johann Scheuchzer of Zurich tells us that in the year 1699, only four years before the date of his

journey, a chamois suddenly descended into the valley of Engelberg in Unterwalden, and not only mixed with the horses and cows, but could not even be driven from them by stones. It was at length shot, and on its body being examined after death by one of the fathers of the neighbouring monastery, a sac containing watery serum and sandy particles was found pressing on the brain. Some ten years ago a chamois appeared in the streets of Bonneville (Haute-Savoie), and walked calmly in at the open door of a restaurant, where it was captured. The Chamonix hunters say that there is a certain herb which, on being eaten by chamois, maddens them, and that they consequently wander down into the valley.

On September 1, 1887, a chamois was seen by an Englishman who was driving on the high-road at Frauenkirch, near Davos-Platz. The coachman also saw it, and the distance from the road to the right bank of the Landwasser, where it was first perceived, was so short that an excellent view of the animal was obtainable. It swam vigorously across the river, and disappeared in the forest beyond. Perhaps as September 1st is the date on which chamois-hunting commences, it had been driven down the valley by terror.

Chamois take freely to the water, and several instances are on record of their having been enabled by swimming to elude their pursuers.

Many hunters look upon one particular animal in the district they inhabit as a pet, and refrain from shooting it themselves, or allowing it to be shot. These favoured beasts are sometimes so tame that they linger round the alps where the chasseurs live, and allow them to approach to within a distance of a few feet.

In common with many other animals, chamois dearly love salt, and in certain districts where the rocks are flavoured with a saline taste, the animals come in flocks to lick them. The hunters sometimes put down salt for the benefit of the chamois, refraining, however, from shooting them when they come to eat it, as they might thus frighten them away from that part of the country.

There are several ways of hunting chamois. Sometimes they are driven, either as in the great preserves of the Duke of Coburg near the Achensee, that of the Archduke Victor near Kufstein, and others in Tyrol and Germany (it is needless to add that there are no private preserves in Switzerland), or in a more sportsmanlike manner, when three or four hunters drive the chamois down from their

pastures at dawn, and, later on, remounting the slopes, drive them up again, often imitating the barking of a dog, towards their retreat. Here several chasseurs are lying hidden, and as soon as the animals arrive within range, they shoot. It is, of course, often difficult to drive the chamois in the right direction, but the knowledge of their haunts displayed by the hunters is frequently most astonishing in its exactitude.

The most usual way of hunting chamois is to stalk them, and I think there can be no question as to the infinite superiority of the sport thus obtained. I would here add, in the words of a sportsman, that "the wholesale slaughter of an animal that Nature herself has placed in the most sublime recesses of her creation, and endowed with such noble qualities and wonderful organisation, is a proceeding which a true sportsman ought not to countenance."

It is supposed that there are as many as 2000 head of chamois in the Grisons alone. The oldest chamois ever shot was believed to have reached the age of forty years. It was killed in the Engadine in 1857, but its age is probably much exaggerated. As for the heaviest chamois, one weighing 125 Swiss pounds was shot on the Tschingel (Bernese

Oberland). I can find no record of a chamois of greater weight than this.

It has been estimated, from measurements made on Monte Rose, that a chamois can jump crevasses sixteen to eighteen Swiss feet in width, while it can jump down twenty-four feet or so.

Every year the number of chamois shot in the Grisons exceeds 500, and in December a corresponding number of skins are offered for sale at St. Andrew's market at Chur.

It has often been a matter for speculation as to whether the chamois will ever become extinct in this country. I cannot think it likely that it will. It is carefully preserved in the closed districts, and as the wild valleys of the Alps are more and more opened up, poaching will become more difficult and the animals consequently freer from molestation. The more, too, that habitations increase in the higher valleys, the wilder will the chamois probably become, and the more difficult, therefore, to shoot; so that I do not think that we need fear the dying out of the race.

CHAPTER VIII.

ON GLACIERS.

THE *Alpine Journal* for November 1868 concludes with these words, "If anybody thinks that Alpine science has been already too thoroughly drilled into the public mind, we would refer him to a recent ridiculous letter which the editor of the *Times* did not think it beneath him to publish, and in which the writer said that a 'puff of smoke,' as it appeared on the mountain, 'raised the cry that the Glacier des Pélérins had burst, carrying with it part of the moraine which kept it within bounds!'"

If any one had told the climbing world in those days that in 1891 the ordinary traveller would be nearly as ignorant of the behaviour of glaciers as was the *Times* correspondent referred to above, I fancy the prophet would have been received with derision. Such, however, I know to be the case; and only last year, while walking up Piz Languard with a party of friends, I was asked if the medial

moraine of the Morteratsch glacier was a carriage road or only a bridle-path! This is my excuse for entering at some length into a subject which has been already written about in so able a manner and in much detail by Professors Tyndall, Forbes, Heim, Forel, and others.

Now, let me tell you something about those great icy masses which, under the name of glaciers, thrust their cold forms far below the region of perpetual snow, and in some cases, as, for instance, that of the Glacier des Bossons at Chamonix, even push down their frozen waves amongst the meadows and forests in the very trough of the valley.

I am constantly asked by those who are only acquainted with the lower end of the glaciers how it is that they are continually and rapidly melting at their lower extremity, and yet their general features are but slightly altered from year to year. The obvious answer is, that they are constantly replenished from above, and that glacier ice has formerly been snow, which, for a considerable period, has been subjected to enormous pressure. The common illustration of a snow-ball, squeezed in the hand till it becomes hard and icy, explains this transition of snow to ice in a manner easily understood by all, and if we remember that the

warm hand, in addition to the pressure, also tends to produce the above result, we have a parallel to the heat of the sun acting on the cold, dry snow of the upper regions. Now, every one knows that when it rains in the valleys it snows on the mountains, and that even during the heat of summer it very seldom rains above a height of 11,000 to 12,000 feet. In consequence of this, the accumulation of snow on the higher peaks is very great, and the pressure which is exerted by its weight is enormous.

As a natural result, a portion of the ice-caps or snow-beds gravitates downwards, and where the upper snows are of great extent and the shape of the channel suitable, a large glacier is found, as is the case near Pontresina, where the huge Morteratsch glacier pursues its lengthy course, fed by the snows of the Bernina and Bellavista. The first to speak clearly and positively on the since well-proven theory that a glacier moves like a river was Monseigneur Rendu, a native of Savoy. "Between the Mer de Glace and a river there is a resemblance so complete, that it is impossible to find in the latter a circumstance which does not exist in the former," he writes, and Professor Tyndall sets forth in an admirable manner the reason why a glacier moves

more quickly in the centre than at the sides. I cannot do better than quote his own words.

"A cork, when cast upon a stream near its centre, will move more quickly than when thrown near the side, for the progress of the stream is retarded by its banks. As you and your guide stood together on the solid waves of that Amazon of ice, you were borne resistlessly along. You saw the boulders perched upon their frozen pedestals; these were the spoils of distant hills, quarried from summits far away, and floated to lower levels like timber blocks upon the Rhone. As you advanced towards the centre you were carried down the valley with an ever-augmenting velocity. You felt it not —he felt it not—still you were borne down with a velocity which, if continued, would amount to 1000 feet a year."

Many glaciers descend in curves, pursuing a sinuous course towards the valley, and the convex side of the curve must, of course, hurry up very considerably in order to keep pace with the rest. Now, as the ice thus moves faster on the one side than on the other, the result is that the convex side is rent and torn asunder, and splits up into those cracks and chasms known as crevasses. Consequently, a glacier which flows downwards in a straight direc-

tion and at a gentle incline presents a comparatively unbroken surface, while a glacier which descends in leaps and bounds over a steep bed and dashes round sharp corners will exhibit all the features of an impassable ice-fall.

Striking examples of the former class of glaciers are the Aletsch glacier, the upper portion of the Gorner glacier, the Miage glacier, the Roseg glacier, the Pasterzen glacier, &c., and of the latter the Bies glacier, the Brenva glacier, the Géant glacier, the Pers glacier, and many others. The exact point at which the snow of the heights passes into glacier ice has never been definitely determined, but each winter's snowfall is distinctly traceable by a band of differently-hued snow wherever above the snow-line a glacier is much split up.

High glacier-clad mountains are covered with what is known as *névé*—*névé* being the finely crystallised snow of the upper regions, which remains unmelted all the summer. The glacier ice which is formed by pressure of this *névé* is quite different to the ice which results from freezing water, and is found to consist of round crystals, varying in size from that of a hen's egg to that of the head of a pin. Any observant person will have noticed the ice usually supplied at Swiss *tables-d'hôtes*, and the

curious way in which it behaves as compared with ordinary ice; for while the latter melts uniformly from the outside, the former is honeycombed with air and water, and after a time its peculiar structure, composed of numerous particles, is noticeable. These crystals or particles are known as *glacier granules* or *glacier corn.*

The whiteness of a glacier, as compared with the blackness of a frozen lake, is a feature which I have known to puzzle many. It is simply owing to the presence of this glacier corn, which allows a great quantity of air to permeate the whole mass of the ice. The beautiful blue veined or ribboned structure, first observed by Forbes on the Unter-Aar glacier, is due to the absence of air-bubbles, and represents bruises in the ice where, by melting, strain, and pressure, certain parts have had the air driven out.

We will now notice several of the peculiarities which are conspicuous on the surface of one of these great rivers of ice. As we walk up from, say, the Morteratsch restaurant towards the glacier of that name, we must cross part of the stony and earthy mass known as the terminal moraine. Now the subject of moraines is a very large one, so much so, that we shall probably devote nearly the whole of a future chapter to it. For the present, we will

merely walk over it, and get on to the very dirty ice of which the snout or lower end of the Morteratsch glacier is composed. As one of the party hews out the steps by which you mount, you have time to observe the ice crystals or glacier corn which we have already spoken of.

Before you have gone far on the level surface of the glacier, you will see several boulders which are resting on ice pedestals supported at some height. These are called *glacier tables*, and result from the presence of a block of stone which protects the ice beneath it from the heat of the sun, thus preventing it from melting. In consequence, while the glacier all round has been dissolving and sinking, the ice under these boulders has but slightly melted, and gradually a pillar of sometimes as much as four feet or more in height is formed under each erratic block. The sun is, of course, able to reach these ice pedestals more freely on the south than on the north side, and thus we observe that the boulder is not balanced evenly on the top, but always inclines downwards towards the south side; it thus has been known to render valuable aid to the mountaineer who has lost his way in a fog or in the dark without a compass on a glacier, as he can, by observing the position of a glacier table, easily inform himself of the direc-

tion in which he is walking. Small stones have a different effect, as they sink into the ice, leaving little holes. You will also probably notice a line of sand-covered mounds, about four or five feet high, and culminating in a sharp point or ridge. Scrape off a little of the sand and earth, and you will find that the mound is composed of ice, which looks quite black where you have uncovered it. The reason for the existence of these dirt cones is obvious; the sand has protected the ice, which has thus remained unmelted, and being heaped up thickly in the centre and thinning off towards the sides, has thus taken its sharply-pointed shape.

Continuing our walk up the glacier, we hear, gradually becoming louder and louder as we approach, the roar of falling water, and soon we reach a point where a bright, dancing stream leaps down a shaft in the ice and is lost to sight. Be careful how you approach this deep hole (or, as it is called, *moulin*), for one false step on your part would take you down far beyond all human aid. Various persons have endeavoured to gauge the thickness of a glacier at a given point by taking soundings down a moulin, and Agassiz found no bottom at 260 metres in one on the Unteraar glacier; he estimated the thickness of the ice to be 1509 feet near the Abschwung.

On Piz Roseg, where the hanging glaciers end in abrupt ice-cliffs, a thickness of 250 feet has been observed. You are now at the foot of the lower ice-fall of the Morteratsch glacier. We will not go farther to-day, and we have already learnt how it is that the tottering ice masses and grim crevasses are formed. We know that the glacier on which we are standing is slowly moving downwards (by its weight, and by sliding in its bed, especially facilitated by its granular structure) at, roughly, the same rate as the *hour*-hand of an ordinary watch. It has been estimated—I believe by Mr. Tuckett—that a grain of snow would take 450 years to travel from the summit of the Jungfrau to the termination of the Aletsch glacier. A most painful illustration of the rate of motion of glaciers was furnished by the descent in the ice of the Glacier des Bossons of the bodies of Dr. Hamel's three guides, who lost their lives on Mont Blanc in 1820, being carried down the *Ancien Passage* in an avalanche, and swept into the *bergschrund* at its base. On August 15, 1861, Ambrose Simond, a Chamonix guide, who was accompanying a party of tourists to the lower extremity of the Bossons glacier, noticed in one of the crevasses torn pieces of clothes and some human bones. He brushed off the sand with which they were

covered, and brought them to Chamonix. Five men at once started on hearing what he had found, and they discovered other remains at a distance of some twelve or fifteen metres lower down. From that day, the glacier continued to give back the remains of what it had swallowed up forty-one years before, and what was found was beyond doubt the bodies and belongings of Dr. Hamel's guides. All that they had carried with them, the scientific instruments, knapsacks, gloves, &c., were gradually set free from their icy fetters. A gauze veil came out untorn and not much faded; and the knapsack of Pierre Carrier contained a leg of mutton perfectly recognisable. More remarkable than anything else was the condition of a cork, which was not only still stained by the wine, but also possessed a perceptible odour of the contents of the bottle in which it had been fixed. ("Le Mont Blanc," by Charles Durier.)

But it is time to descend, and in the next chapter I will make a few observations on *moraines* and the power of a glacier in planing down or removing whatever object it meets with; this power, as a matter of fact, being very much more limited than is popularly supposed.

CHAPTER IX.

ON MORAINES.

Now, in order clearly to understand the formation of moraines, I must first say a little more about the movement of glaciers and the *débris* which they bring down.

I have sometimes heard unthinking persons remark that the snowfall of each winter must tend to increase the height of snow-peaks. This observation shows that such people entirely overlook the four great factors in the maintenance of a uniform height on mountain summits, namely, melting, evaporation (which, in the dry air of the heights, is a very powerful factor in causing the disappearance of snow), glaciers, and avalanches. It is to the two latter of these that we must look for the construction of moraines, in which work they are very largely aided by two other factors, frost and rain. The glacier, starting in its infant purity from some white, unsullied peak, loses, before many years have past, its spotless character. The wintry frosts, gathering

into iron bonds the streams which trickle down the mountain-sides, expand the water in freezing, and shatter the rocks with a force that the most solid cliffs cannot resist. Broken and weathered fragments are washed down from the slopes on every fall of rain, and dropping on to the once unspotted bosom of the glacier, swell the burden which is gradually laid upon it with advancing years. Spring after spring, furious avalanches rush down, laden with earth and stones, which they fling recklessly upon the now begrimed edges of the icy stream. The winds and storms, too, contribute their share of dust and sand, and as the glacier still flows on, shrunken in size and laden with heaps of earth and rocks, at length it lays itself to rest, a mass of dirty ice and stones, in the valley towards which it has been ceaselessly progressing.

The glacier of the Alps which comes farthest down into the lower regions is the Grindelwald glacier, which descended to 1080 metres above sea-level in 1870, while that which presents the largest surface is the Aar glacier, and the longest is the Aletsch. Heim gives an estimate, in his valuable work on glaciers, of the number of glaciers existing in Europe, dividing them into those of the first and second order.

The list is as follows:—

	1st Order.	2nd Order.	Total.
Switzerland . . .	138	333	471
Austria	71	391	462
France	25	119	144
Italy	15	63	78
	249	906	1,155

Glaciers have regular periods during which they advance or retreat. Many persons who visited the Mer de Glace some twenty or more years ago remember that it then came down nearly to the level of the valley of Chamonix, while the Rhone glacier reached almost to where the lower hotel now stands. In old days, too, the two arms of the Fee glacier united below the Gletscher alp, so that the cows had to pass across the ice in order to reach their summer pastures. A period of advance is always preceded for some years by a noticeable swelling of the upper portions of glaciers; this, of course, is quite what one would expect. A succession of cold, rainy summers and exceptionally snowy winters eventually causes an increase in the glaciers, and the reverse has naturally the contrary effect.

You have learnt that a moraine is a mixture of earth and stones which is borne down by a glacier,

and you know how all this *débris* has accumulated on the ice, chiefly by means of the shattering power of frost on the rocks. Now let us notice the position which moraines assume on a glacier like, say, the Morteratsch. As I have said, persons unaccustomed to the mountain world, and thus unable to estimate the relative sizes of objects seen at a distance, have been known to inquire, when ascending Piz Languard, if the dark streak down the centre of the Morteratsch glacier is a path. They are astonished to learn that it is about fifty feet or more broad, and perhaps twenty feet high in the centre. It is, in fact, neither more nor less than a moraine, and belongs to that class known as medial moraines. Each glacier has a moraine on either side of it, and when two glaciers unite, their lateral moraines join and form a medial moraine. The moraine at the end of a glacier (terminal moraine) is almost entirely formed of the earth and stones which fall off the end of a glacier, and not, as used to be supposed, by any pushing or scooping of the base of the glacier.

In fact, the erosive power of a glacier is infinitesimal as compared with that of water. Dr. Heim cites various examples to show that a glacier leaves undisturbed much of what it finds in its way, and he says that the Forno glacier, which some years ago

greatly retreated and left blocks of itself covered with *débris* behind, rapidly advanced once more in 1884 over the old accumulations at its base, but did not disturb them in any way. Many of our readers will have noticed the many glacier-worn rocks in the Engadine valley; they are especially abundant near Maloja.

Now it will be seen, on near examination, that these rocks have been gently polished by the ice constantly slipping over them, and that they have not those deep smooth hollows which are formed by rushing, eddying water.

The great glaciers which, in the glacier period, flowed down from Mont Blanc to the Jura have left ample proof of their origin in the huge blocks of granite which were transported by the ice, and now lie stranded on the hill-sides at a distance of sixty miles and more from the rocks out of which they were quarried. The size of some of these erratic blocks is very remarkable. The biggest boulder in the Alps is in Val Masino (one of the Italian valleys near the Bernina district). Its dimensions, according to the late Mr. Ball, are—length, 250 feet; breadth, 120 feet; height, 140 feet; in fact, as Mr. Douglas Freshfield remarks, "as tall as an average church tower, and large enough to fill up many a London

square." Many of my readers will remember the great serpentine boulder in front of the little inn at Maltmark, which was no doubt brought down by the glacier which must have originally filled the basin of the lake. The ancient moraines near Aosta are also remarkable evidences of the glacial epoch.

One word here as to the shape of a moraine. It rises, as you know, to a ridge in the centre, and slopes down like the roof of a house at the sides. This is because the heaping together of the earth and stones in the middle has protected the ice from melting as rapidly there as towards the sides; in fact, the same cause brings about the shape of moraines as applies in that of sand cones.

I will close this chapter by a brief explanation of an appearance which many of my readers who have visited Montanvert may have noticed, especially on cloudy, dull days and after sunset. I refer to *dirt bands*, which are especially noticeable on the Mer de Glace. I observed them under peculiarly favourable circumstances from the summit of the Grandes Jorasses, when a cloudy sky showed them up most distinctly. They are often seen from the Montanvert hotel, however, and take the form of dark bands across the glacier, the convex side of the curve of each being in the direction of the motion of the ice.

These dirt bands are very simple in their origin, which is as follows:—At the foot of an ice-fall the tottering blocks reunite and freeze together, presenting a tolerably smooth surface with gentle undulations. The glacier streams sweep dust and small *débris* into the depressions, which gradually form themselves across the glacier. This dust finally freezes into the ice, and lower down presents the appearance of the famed dirt bands.

Sometimes a photograph will give dirt bands with great distinctness; they are very clearly seen in a view of the Mer de Glace from the Aiguilles Rouge, taken by the late Mr. W. F. Donkin.

CHAPTER X.

ON AVALANCHES.

THOSE who during the summer of 1888 visited Switzerland had very unusual opportunities for studying both the appearance and the effect of avalanches. It is, indeed, rare to see a huge mass of winter snow lying in the Rosegthal in mid-summer, and the remains of numerous other avalanches were that year still unmelted in many high-lying Alpine valleys. I wonder if the crowds who, out of curiosity, visited the snowy *débris*, knew anything of the various causes which formed the avalanche and launched it down the hill-side, or if they could tell to what class of avalanche it belonged, and at what time of year it is likely to have fallen.

Avalanches vary immensely in their characteristics, and can be classed under three headings according to their peculiarities. The different kinds of avalanches are as follows:—*Staublawinen*, or dust avalanches; *Grundlawinen*, or compact avalanches; *Eislawinen*, or ice avalanches. Dust avalanches are the most to

be feared of any, for while the others fall according to certain well-known rules and at particular times of the year, the dust avalanches are erratic in their movements, uncertain in the periods at which they come down, and most terrible in their results. Dust avalanches consist of cold, dry, powdery snow, which falling on a slope of ice or hard snow, or even on a steep slope of grass, slides off on the slightest provocation.

Often, if a bit of overhanging snow falls on the upper part of the hill-side, or if an animal disturbs the newly fallen mass, or perhaps if a gust of wind suddenly detaches it from the surface on which it rests, the whole accumulation begins to move down, gently and quietly at first, and then with ever-increasing power and a deafening roar, uprooting trees, carrying away châlets and whatever happens to be in its course, and leaping like a huge stream of spray-covered water from precipice to precipice, till it makes one final bound across the valley, the impetus of its course frequently carrying it up for some distance on the opposite slope. The wind which accompanies such an avalanche is far more powerful than a raging hurricane, and it often levels trees and buildings, forces in windows and doors, and carries heavy objects to an incredible distance.

One of the most remarkable performances I know of in connection with dust avalanches took place in the Engadine, when the wind preceding a huge mass of snow, rushing down the hill-side, blew five telegraph posts flat down, although the snow itself did not come within 500 feet of them.

"Constant readers" of the *St. Moritz Post* will remember that in an account of the avalanches of the winter of 1887–88 which appeared in the first number of the summer issue, it was stated that, on the occasion of the fall of two great avalanches into Saas-Grund, most of the windows and doors in the village were forced in from the pressure of air. While dealing with the subject of dust avalanches and the effects of the powerful wind which accompanies them, I may mention that Tschudi relates in his "Monde des Alpes" that such avalanches will sweep châlets and trees from the ground, and carry them, whirling like straws in a storm, through the air, dropping them at a distance of 400 feet. Châlets, filled with hay, and quite uninjured, have been found, it is said, some two hundred yards and more from the termination of the *débris* of an avalanche, the wind preceding which had blown them right across the valley.

In the year 1689 an enormous avalanche, which

in the annals of the Grisons is spoken of as the most fearful one on record in the canton, came down from the heights above the village of Saas, in the Prättigau, and demolished 150 houses. Amongst the *débris*, which had been swept by the avalanche to a considerable distance, a rescue party discovered a baby lying safe and sound in his cradle, while six eggs were found uninjured in a basket close at hand.

Another sort of avalanche which can be roughly classed under the above heading is formed by the sudden descent of an overhanging mass of snow. The slightest movement in the air will often suffice to break the cornice, and it straightway comes rolling down the slope. Such avalanches are not usually much to be feared, though a notable exception to this fact was furnished on the Bernhardino Pass, when the mass of falling snow, overtaking the post in its passage, carried thirteen persons and a number of sledges over the precipice into the gorge beneath.

Dust avalanches are very frequently met with in summer after fresh snow by climbers amongst the higher peaks of the Alps. It was an avalanche of this kind which caused the Matterhorn accident of 1887, and the account which Herr A. Lorria has given of the event is so realistic, and conveys so

exactly to the mind what the nature of such an avalanche is, that I extract the following from the *St. Moritz Post* of January 28, 1888, for the benefit of my readers:—

"Gently from above an avalanche of snow came sliding down upon us; it carried Lammer away in spite of his efforts, and it projected me with my head against a rock. Lammer was blinded by the powdery snow, and thought that his last hour was come. The thunder of the roaring avalanche was fearful; we were dashed over rocks laid bare in the avalanche track, and leaped over two immense *bergschrunds*. At every change in the slope we flew into the air, and then were plunged again into the snow, and often dashed against one another. For a long time it seemed to Lammer as if all were over, countless thoughts were thronging through his brain, until at last the avalanche had expended its force, and we were left lying on the Tiefenmatten glacier. The height of our fall was estimated by the engineer Imfeldt at from 550 to 800 feet."

In winter, when a fall of snow takes place on steep mountain-sides, scores of such avalanches may be seen dropping like shining threads down the cliffs. The face of the Eiger seen from Grindelwald in early spring is often fringed with tiny cascades of

snow, while the rocks of the Wetterhorn * send down avalanches almost incessantly on the first sunny March morning after a snowfall.

The huge avalanches which, after a severe winter, summer visitors to Switzerland see lying in high Alpine valleys, covered with dust and stones, and with great trunks and branches of trees frozen into them, belong to the class of avalanches known as *Grundlawinen*, or compact avalanches. They usually fall from year to year in the same track, and come down, according to the warmth or severity of the season, during February and March. One year I saw a very large one fall in the Züge, near Davos-Platz, as late as the 3rd May.

In order for a really large compact avalanche to form, something more than the steep slope which is the birthplace of dust avalanches is necessary. The most dangerous formation of a hill-side, as regards compact avalanches, is the following. First, there must be, high up on the mountain, a collecting basin or valley, sloping somewhat downwards, in which a large amount of snow can accumulate. Secondly, leading from this basin must be a treeless

* In October 1891, I was fortunate enough to secure a photograph of an avalanche in the act of falling from the Wetterhorn. This may now be seen at Messrs. Spooner's, 379 Strand.

slope, not too steep, on which snow will lie unless urged down by a considerable disturbance from above. In some seasons, when but little snow falls, no avalanche will take place under the conditions described. In others, when storm after storm has piled tons of snow in the upland valley, the warm, dry *föhn* wind will cause the mass to become detached from the earth on which it rests, and suddenly the entire winter's store will come dashing down towards the valley, forming an avalanche such as visitors to the Engadine in the summer of 1888 saw in the Rosegthal and Beversthal.

These compact avalanches are composed, by the time they reach the end of their course, of stones, earth, roots and branches of trees, all frozen together by the heavy, wet snow in which they are encased. A story is told of a man who was overtaken on the Splügen by such an avalanche, and though he escaped from death, part of his coat was so firmly frozen into the icy mass, that he could not get it away. It is very remarkable that a person buried at a great depth in an avalanche of this kind can distinctly hear every word that those who are trying to find him may utter, though it is impossible for them to hear his cries.

The snow of an avalanche has the same power as

the ice of a glacier in the preservation of whatever animal matter may be embedded in it. On one occasion the bodies of a chamois and her young one were found in an avalanche in Tyrol in a fit condition for food, on its melting two years after it came down, its huge size having prevented its disappearance the first summer.

These huge *Grundlawinen* come down, as I have already said, in the same track season after season; it is therefore reasonable to suppose that the inhabitants of districts peculiarly exposed to such avalanches would try and control their snowy invaders by every means in their power; and, in truth, this is just what is done to a certain extent, though a neglect of the most obvious precautions prevailed in the country till quite within recent years. Even now one is often astonished at the amount of unnecessary damage which the Swiss will calmly allow an avalanche year after year to do, till they suddenly awake to the fact that a wall or two across the *couloir* (or avalanche track) may make the whole difference between their being able or not to cultivate a certain sunny meadow in the valley, which has hitherto been plentifully strewn with stones and other *débris* regularly every sping.

It is a well-known fact that by far the best pre-

servative against avalanches is a thickly wooded slope, and the Swiss authorities, fully recognising this, have of late years caused a very large amount of replanting to be carried out, and are most stringent in their rules regulating the cutting of trees. By great trouble and care being taken concerning the forests, Switzerland could be freed to a large extent from the destruction wrought by avalanches.

In many places travellers will notice avalanche-breakers, in the form of triangular stone walls, which have been erected to protect whole villages, or individual houses or churches. There is an avalanche-breaker of this sort at Frauenkirch, near Davos-Platz, where the north wall of the church is constructed so that, should an avalanche sweep down upon it, the surface exposed to its full fury being pointed in shape, tends to divide and turn aside the snow directly the point comes in contact with the avalanche. Similar breakers may be seen attached to several houses in the same and other neighbourhoods. Fences or stone walls across steep slopes, or stakes driven into the ground at intervals, are also a very efficient hindrance to the descent of avalanches. Visitors at St. Moritz have doubtless noticed the contrivances of this sort on the slope descending from the Alp Laret to the Cresta Fuss-

weg; they are well seen by any one standing on the high-road near the Bär Inn (famed for the quaint caricature fresco portraits on its exterior of the late Lord Beaconsfield and Mr. Gladstone).

It is marvellous to notice how weak an obstacle will hold back the largest avalanche before the snow is set in motion, and yet once the great mass is launched down on its destructive career, it sweeps all before it.

The balled structure of a compact avalanche, which those who visit it within a few weeks of its fall will have remarked, is caused by the damp snow having rolled over and over till the circular form of its particles resulted. I remember an enormous avalanche of this kind which fell near Bouveret (Vaud) at the end of March 1886. It came from the Gramont, and rushing some 4000 feet down the mountain, dashed across the railway and the road, and ended its course in the lake. It fortunately came down at night—which seems odd, till one remembers that the slope from which it descended faced north—so no accident resulted, and the following afternoon all Montreux flocked across the lake, to wonder at the high walls of the cutting which had been made to allow the trains to pass, and to pelt each other with the snowy balls which had

rolled hither and thither amongst the violets and primroses of spring.

Grundlawinen often attain a mass of 100,000 cubic metres (Heim, "*Gletscherkunde*"). The great "*Raschitsch*" avalanche near Zernez (Lower Engadine), which fell on April 23, 1876, across the high-road into the river, was 168 metres wide, 12 metres thick, and 300 metres long, 600,000 cubic metres in bulk, and the tunnel cut through to allow the traffic to be carried on was 75 metres long. This avalanche was much exceeded in dimensions by the one which fell in February 1888 near Glarus-Davos, of which the snow-tunnel was upwards of three hundred feet in length, and over twelve feet high. This avalanche is noted throughout Switzerland, and is known as the "*Schwabentobellawine.*" It only falls in very snowy seasons, but when it does come down, it is of enormous size.

In the year 1888 it carried away a road-mender, whose body was only discovered some three months later; it was found on the right bank of the Landwasser, having evidently been blown across the river by the wind preceding the avalanche.

Avalanches have sometimes caused disastrous floods by falling into the beds of rivers and damming up the water. On January 29, 1827, Süs

suffered from a similar occurrence, the Inn being completely blocked up for several hours during the night, and the water flooding the village in consequence. It would be wearying to give more than these few examples of the effects of *Grundlawinen*, we will therefore pass on to the subject of ice-avalanches. These must be a tolerably familiar sight to most persons who have travelled in Switzerland, judging by the crowds who, day after day throughout the summer, sit outside the little inns of the Wengern Alp or Kleine Scheideck, dividing their attention between their luncheons and the thundering falls of ice from the glaciers of the Jungfrau.

Ice-avalanches are quite different to both the other kinds, inasmuch as they always fall from glaciers.

As my readers doubtless know, a glacier moves downwards day by day, sometimes an inch or two, sometimes as much as two feet. Well, many glaciers, after quitting the snow-beds by which they are fed, suddenly find themselves at the top of a precipice. Under these circumstances, as they are unable to stand still, there is but one thing for them to do, viz., go over; and as ice, though plastic, is by no means so to the extent that treacle—to which glacier ice has so often been likened—is, it is obvious that a slice will break off the advancing

tongue of the glacier, and come thundering down the rocks, to form material for another glacier below, or, if the quantity is insufficient, to melt gradually away. Now, this form of an ice-avalanche is known in endless varieties to the mountain-climber, but perhaps the most frequent thing of the kind which he meets with is the fall of *séracs* (or icy pinnacles) during his passage through an ice-fall.

Those who have visited the upper part of the Morteratsch glacier will recollect ice-falls such as I have referred to; the one, that of the Pers glacier, the other, the so-called Labyrinth, coming down from Piz Bernina; and fine ice-avalanches are often seen falling from the ice-cap of Piz Morteratsch. The *séracs* passed through in making the passage of the Col du Géant from Chamonix or Courmayeur are also apt to tumble about at inconvenient times, and many other glaciers are conspicuous for these particular features.

Perhaps the best position in Switzerland from which to view ice-avalanches is the Wengern Alp, from whence the glaciers which cling to the Jungfrau can daily be seen dropping tons of ice down the scarred slopes, a white cloud hanging for several minutes over the spot where a great piece of ice has been ground to powder by its fall.

Even the proverbially safe Mont Blanc contrives occasionally to allow one or two of the ice-pillars which fringe the Dôme du Gôuter to overbalance and dash right across the Petit Plateau below, over the very track by which parties make the ascent. It is odd that this bombardment has never hitherto caused an accident on Mont Blanc, though when one bears in mind the hundreds of stones which are annually kicked down the Matterhorn regardless of the number of people on whose heads they may descend, and that there, too, no fatal accident has resulted from that cause, one feels sure that a special providence watches over the inexperienced class of *intrépides* who throng Mont Blanc and rush in scores up the Cervin.*

Ice-avalanches have occasionally done immense damage when large falls have taken place into inhabited valleys, as, for instance, when part of the Bies glacier came down, and the wind preceding it overthrew Randa. This circumstance is so well known, being so often referred to in guide-books, that I will not enter into details here. Full particulars can be found in Dr. Forbes's work, "A Physician's Holiday."

* Since writing the above, an accident resulting in the death of a traveller and a guide took place on the Petit Plateau.

CHAPTER XI.

THE BERNINA-SCHARTE.

The general reader may perhaps find the following description somewhat dry; the climber may share his opinion. Having fairly warned both, and promising to make my account as short as possible, I will now embark upon it.

Piz Bernina is the highest mountain in the Grisons, a canton in which climbing is rather neglected. It is a pity that more members of the A.C. do not go there, especially now that several good guides are available; but I am digressing already, so *revenons au Piz Bernina.* This peak is frequently ascended by the ordinary route, but until last summer seldom by any of the other lines of attack. The time has now come, however, when the route by the "Scharte" is the most popular.

The first ascent of Piz Bernina by the "Scharte" was made in 1879 by Dr. Güssfeldt, who considered it so difficult that he left a bottle in the gap, with a notice inside it to the effect that he defied any

one to bring it down. But on August 6, 1883, Dr. Schultz, with Alexander Burgener and C. Perren, repeated the expedition, and brought Dr. Güssfeldt's bottle back with them. Commenting on this, the *Alpine Journal* says: "We regret to say that this most dangerous expedition was effected a fourth time in August 1884 (by Herren Zsigmondy and Purtscheller without guides, who slept two nights on the way), and that there is some talk of building a hut to facilitate the climb, though we trust the scheme will never be carried out." From this reputation the route by the "Scharte" has gradually fallen—or risen, as I prefer to call it—to what it is at present. In 1889 Mr. W. E. Davidson wrote, "The Scharte is easy, the *arête* a fine climb;" and now we find that the excursion has been undertaken twelve times alone under Martin Schocher's guidance. The route having now lost its terrors, an account of an ascent may interest that section of our country-folk who propose following in our footsteps. I had often thought of making the expedition, but had taken no definite steps towards accomplishing it, till one day I heard that a party had just returned from descending Piz Bernina by this route. "Now," thought I, "here is my opportunity. The steps are made, the mountain is known

to be in good order, why not start at once?" But the elements were against me. No sooner did we reach the Misaun Alp than a terrific thunderstorm burst upon us, and farther advance was impossible. Nor could we renew our attempt, for heavy snow fell, and climbing was at an end for that season. But the following year I returned to the attack, and though the weather nearly checkmated me again, we contrived to carry our plans through with success.

On this occasion we took up our quarters for the night under a boulder about an hour and a half farther than the Roseg restaurant. We set out in perfect weather, but towards evening clouds drifted up, and as the sky gradually became more and more obscured, our spirits sank lower and lower, till at midnight, when the guides relit the fire, an ominous drip-drip-drip on the boards which we had propped up against the boulder as a shelter from the wind, caused a feeling akin to despair to steal over us. Weibel indulged in a few forcible expressions towards the elements, while Schocher and I made tea and gloomily discussed the situation. Of course, the Bernina by the Scharte in bad weather was out of the question for prudent people like ourselves; still we did not wish to return whence we came. We had almost resolved, "if the worst came to the

worst," to stretch our limbs by crossing Piz Morteratsch to the Boval hut, when a brilliant idea came to me. "Schocher," I said, "let us go up Piz Prievlusa!" Now, I must here state that the route for this peak (which up to now has been but once ascended) is the same for a considerable distance as that for the Prievlusa Saddle, and to the Prievlusa Saddle we had to go for the Bernina-Scharte. Schocher jumped at my suggestion, and no sooner was our plan decided on than the rain saw fit to stop. The sky, however, was still darkened by clouds, though every now and then a star shone out from a ragged hole in the mists.

We collected our baggage, put the rugs and saucepan in a heap for the porter to fetch down later in the day, and at 1.15 A.M. were off. I must say that my hopes of getting up the Bernina were at a low ebb, the only feeling I associate with the occasion being one of drowsy stubbornness—in fact, a sensation of walking as in a dream, I knew not whither.

As we neared the mountain, and dawn came on apace, cloud-banners were seen drifting wildly from the sharp and jagged crest. Weibel pointed to them, exclaiming that we could never pass along the ridge in such a wind; but Schocher, after exa-

mining the flying clouds with care, pronounced them of no importance, as they were blowing down, and not across the ridge. I was much struck with the skill he showed in coming to this conclusion, which, later on, turned out to be perfectly accurate.

By daybreak we had a large expanse of blue over our heads, and though fleecy clouds clung to most of the neighbouring summits, the Bernina remained persistently clear, save for an occasional shred of mist streaming from the upper rocks. At 5.30 we gained the pass between Piz Prievlusa and Pizzo Bianco, known as the Fuorcla Prievlusa. Making our way to the Morteratsch side, we sat in the welcome rays of the sun on a rocky ledge at the top of a grand wall, up the face of which the pass is reached from the Boval side. Here we breakfasted, and then continued our way towards Piz Bernina. The first bit of the ridge, until the rocks were gained, was the most unpleasant piece of work we encountered during the whole climb. The snow here was in bad order, the step from it on to the rocks was awkwardly steep and long, and I, for one, was glad to get my foot on to a more solid surface, and to profit by the good handhold available. The rock *arête* affords pleasant climbing, but from the point where it ceases to the summit

of Pizzo Bianco is a long grind over snow. Every step had to be cut, and Schocher hacked almost without ceasing till we reached the Pizzo Bianco, from where the really interesting portion of the ascent commences. An hour or so earlier we had seen another party rapidly mounting the snow slopes below the Fuorcla. It consisted of Messrs. Scriven and West, accompanied by Peter Dangl of Sulden and a local guide, by name Joos Grass. The latter, oddly enough, I had met on a previous ascent of the Bernina by the ordinary route; both on that occasion and the climb I am now writing of he impressed me favourably. This party had spent the night at the inn in the Rosegthal, which they had not left till 3 A.M.

After nearly an hour's halt on Pizzo Bianco, we once more got under weigh, and, as we were starting, the others joined us, and paused in their turn for a meal on the point we were quitting. I had thus the pleasure of traversing a narrow rock ridge with four critical pairs of eyes watching my awkward movements from a first-rate point of view. Fain would I have clung on with my hands; my pride obliged me to walk uprightly whenever such a mode of progression was at all possible. I had a sneaking conviction that there

was hardly a single place where, not only was it possible, but even tolerably easy, and that the sense of obligation was good discipline in forcing me to strive after better "form" than usual.

The descent into the "Scharte" (or cleft in the *arête*) proved simple enough, with the knowledge that until I reached the bottom Schocher was bestriding the ridge above, and was "*ganz fest.*" He followed with ease and rapidity, and turning the party the other way on, began to cut steps round the great rocky tower which here bars the ridge. The *couloir* was ice throughout, and we spent a lot of time before we were clear of it at the foot of the final peak of the Bernina. Climbing up this without difficulty, though delayed somewhat by the fresh snow overlying the rocks, we reached the top at 10.30, the other party following immediately in our wake.

The weather, which had behaved better than we had dared to hope, now gave up the paths of virtue, and a thick mist, with lightly falling snow, hid everything at more than a few yards' distance from our view. However, we had reached our goal, and the clouds could now do their worst without endangering our return. So after half an hour's halt, we started off in a cheerful frame of mind for Boval.

How we scrambled down the *arête*, glissaded over the snow-fields, and raced through the Labyrinth, need not be told. We got to Boval early in the afternoon in steady and soaking rain, and astonished the people at the restaurant by dropping down upon them out of the clouds from Piz Bernina. So ended our day's excursion.

CHAPTER XII.

IN PRAISE OF AUTUMN.

I AM one of those eccentric persons who consider autumn better than summer for climbing. "One of those," did I say? Perhaps it would be nearer the mark to say that I have often been the sole representative of the scrambling fraternity haunting mountain centres from choice at that season. You suppose I have a reason for my partiality for that time of year? Yes; in fact, I have several. First, I am a coward, and to encounter a thunderstorm on a peak, and have my axe go *ziz-ziz-ziz*, while my hair stands straight up on my head, would terrify me into fits. Now, in autumn one seldom has thunderstorms. Then I have an aversion to tourists. In autumn there are few tourists; again, I hate to be roasted for thirteen or fourteen hours and to wade through deep snow. In autumn the days are short, the air is fresh, the snow is usually in first-rate order. Once more, I do not love sleeping in huts which, being built for eight persons, have to supply shelter

—it is little more—for perhaps twenty-four. In autumn one has the huts to oneself.

Now, have I not made out a pretty strong case? Can you wonder that I have prowled round the Pennine Alps and the Oberland in September and October rather than in July and August?

To prove that one can climb as well in autumn as in summer, I will give a short account of some excursions made in past years at that season. They will be, alas! unexciting reading, like most things "written for a purpose." Many climbers are fully aware of the truth of what I urge, but numerous beginners in mountain-craft lose heart when a heavy fall of snow occurs at the end of August or the beginning of September, and, packing up their traps, leave the Alps in disgust. In addition to the expeditions described below, I have been up the Dent Blanche, Zinal-Rothhorn, Ober-Gabelhorn, Trifthorn from Triftjoch, Mont Collon, Rimpfischhorn, Eiger, Wetterhorn, and other peaks, and (herein lies the gist of the whole matter) found most of them in first-class order at that season.

One evening in September, I found myself, with Ulrich Kaufmann and "Caucasus" Jossi, the sole occupants of that very comfortable hut, the Schwarzegg. For some time this hut has been in Jossi's

charge, and consequently neatness reigns supreme. We were a cheery party. The sky was cloudless, the moon would be full for our start, the great, solid crags of the Schreckhorn, ruddy in the glow of sunset, hung invitingly over us. We had slept out for the same peak a week earlier, but bad weather had driven us down to the valley without our having taken one step beyond the hut. Now all was changed, and we felt no doubt as to the success of our coming excursion.

At 2 A.M., in moonlight clear as the light of the sun, we were off. The Schreckhorn, it seems to me, has not received its due measure of praise. It has much to recommend it. There is no moraine. An easy path leads in ten minutes or so to the snow. Then a steady ascent, varied by rocks, brings the traveller by breakfast-time to the base of the upper glacier. It was at some distance below this place, in the snow *couloir*, that Mr. Munz was killed by falling ice.* I could not at all understand this accident, for on no part of our route was there

* I am aware that the *Alpine Journal* (vol. xiii. p. 113) states that Herr Munz was killed by falling snow, not ice, which fell from the rocks. I talked to the brothers Boss, and also to several of the guides on the subject, and they all affirmed that it was ice from the little hanging glacier. Which explanation of the disaster is correct, I am, of course, unable to say. One of the guides, Meyer, succumbed to his injuries the day after the accident.

danger from this source.* But the guides explained that that season, and for some years before, the top of the *couloir* had been filled up by a small hanging glacier. Peter Baumann, shrewd old man, had always urged the knocking down of this glacier, which would have been a simple piece of work. But the matter was allowed to slide, till one fine day the whole mass of ice broke away and dashed down the slope. The death of Herr Munz, who was struck by some of the falling fragments, was the result.

The upper *couloirs*, by which the mountain is seamed, were ice, but my guides, with their usual judgment, kept as clear as possible of them, and we mounted by a rib of rocks. Twice we crossed the *couloir*, but at that early hour there was no danger, and Kaufmann made great steps, like miniature arm-chairs, so that we could get over very rapidly coming back.

From the Saddle we saw, somewhat to our disgust, that there was a considerable amount of snow on the *arête*. This made our progress rather slow, so that it was not till 9.15 that we found ourselves on the summit, a dome of snow. The view was exquisite; but that day week, when, in equally beautiful

* In September 1891, Ulrich Kaufmann was struck on the knee, and bowled over, by a block of falling ice at this same spot.

weather, I found myself on the top of the Lauteraarhorn, I had to confess that the view from that peak is infinitely finer. In the first place, the Schreckhorn, seen from so near, and from a peak less than 150 feet lower, is a grand object, and its noble proportions and bare cliffs impressed me as few, if any, mountains have done before, while I almost trembled to think that but seven days earlier we had ventured up its precipitous sides, so deceptive and complete is the idea conveyed of its excessive steepness. Then, the Lauteraarhorn is much better placed with regard to that most graceful of Oberland peaks, the Finsteraarhorn—the "dark dove horn!" and from it, too, the beautiful curves of the Aar glacier, winding away towards the Grimsel, are seen to perfection. But here am I, describing the view from the Lauteraarhorn, while all the time I am on the Schreckhorn. One glimpse they both give—that of the Lake of Thun, with the white spire of the church of Spiez nestling among trees close to the blue water's edge, while behind roll range upon range of purple hills, lost far away in a warm haze which mingles with the soft tints of the cloudless sky. These Oberland views can indeed boast of the ever-attractive charm of contrast; on the one side, ice, snow, precipices of naked rock, utter sternness and

absence of vegetation; on the other, blue lakes, white villages, deep green meadows, abundant evidences of human life and industry.

But I become insufferably tedious. Let me hasten away from mountain-tops and descend to less romantic regions. We got down to the saddle very pleasantly, and from there to the hut more or less uncomfortably, exchanging nasty sharp, loose rocks for waist-deep snow, with anything but complimentary remarks on both. We were safely in the Schwarzegg by 2 P.M., and discussing an elaborate tea, the guides' chief idea of that beverage being to put in as little of the chief ingredient, and as much sugar as supplies admitted of. Tea being concluded, and supper in course of preparation, we looked out for our porter, who had orders to bring up our stock of provisions for the ascent of the Finsteraarhorn the next day. Presently we noticed two figures crossing the ice, who, on approaching, turned out to be Herr Theophile Boss and the porter. The former had made an attempt on the Finsteraarhorn the previous week, and had been driven back by bad weather, so I had asked him to join us on our ascent.

During our evening meal, Kaufmann staggered us by remarking in his quiet way that we had

better go to bed early, as he proposed calling us at 11 P.M. We protested loudly, but he only added in his calm tones, "Or perhaps half-past ten." So, still grumbling, we hastily crept to our straw, and I, for one, can answer for it that I did not know much more till Jossi began to light the fire, when I turned over and had another sleep. No doubt our reluctance to shorten our night's rest caused the preparations for departure to take longer than usual. Anyhow, it was 12.40 before I found myself, in a very bad temper, trying to keep awake at the door of the hut, while the final look round for articles possibly forgotten was being given by the guides.

We anticipated a lot of step-cutting, so the porter came with us in order to give the guides less to carry. As before, it was a cloudless, moonlight night, and so far windless. We made rapid progress to the Finsteraarjoch, reaching the foot of that vile place, the Agassiz-joch, while it was still dark. Here we paused for food, and just as the grey light of dawn was stealing over the sky, we began to go up, and up, and up, till we felt like the poor wretches who climb the tall chimneys of factories. At last we took to a rib of rock, very steep and planted in ice, to say nothing of various embellishments of the same substance at intervals along the

surface. It was heart-breaking work. There was the pass close at hand, and yet we never seemed to get any nearer to it. But after what seemed ages, Jossi gave a sigh of satisfaction, and quitting the rocks, began to traverse the snow. Soon we reached a warm and sheltered spot, where we suggested a halt for luncheon in the genial rays of the sun. But no; it was not the usual luncheon-place; people always had lunch on the Saddle (five minutes farther), and therefore we must have lunch on the Saddle. Theophile ventured to protest, and was promptly sat upon; so to the Saddle we went. There we had our appetites interfered with by various things. First, we were disquieted by the aspect of the ridge, now first completely seen, which had put on an entire and apparently not too closely fitting suit of ice and powdery snow. Of rocks one hardly saw a trace. The guides munched very fast, nodded their heads, addressed warm expressions of disapprobation to the ridge, and seemed very jolly on the top of everything. The wind blew, our teeth chattered, the eatables nearly froze, and we, too, pretended we were having an awfully good time. But the happiest moments come to an end, and so did our luncheon, after which, blue of nose and hand, we struggled along in the face of

a driving mist. Well, it was not so bad as it looked. The guides spared no trouble, and dug out the buried rocks like terriers after a field-mouse. Progress was necessarily slow, and we did not seem to make much way. At last the Hugi Saddle was reached, and the work became easier. The snow was now firmer, we could kick out good steps without difficulty. Finally the slope eased off, and in a few minutes we stood by the stone man on the summit. The view was fine, the mist having cleared off just as we reached the top. But it was already eleven o'clock, so we did not stay long, but began the descent after about ten minutes' halt on the summit. The climb down to the Agassiz-joch was long; it took us nearly four hours, including half-an-hour for lunch, to get there. It was thus almost 4 P.M. when we embarked in that charming slope. Tedious as had been our ascent of it, our descent was much worse; and there are stones, and when stones make descents, they do it pretty quickly. But we won't talk of the stones; none of us got our heads broken. Well, we came down that nice lively slope and the icy rocks, and got into the *couloir,* and came down that; and at last—being late in the year—it grew dusk. We were beginning to think that we must be somewhere near the first of the *bergschrunds* (I cannot

conscientiously say that they were more than a couple of inches wide), when suddenly the porter exclaimed, "I can't find the track!" We could not make this out. The steps had been easily felt a moment before. He fumbled about for a bit, but still without success; so Theophile, who was just behind, went down a few steps and put out his hand to feel for them. Instantly he drew it back, and said in rather an awed voice, "There has been an avalanche." Jossi at once untied from the back, sprang down to the front, put himself in the porter's place, and led away in the dark in such splendid style, that in fifteen minutes or less we were down on the plateau of the Finsteraarjoch. Here the lantern came into use, and we carefully threaded our way through the icefall of the glacier. Our tracks of the morning were of the utmost value, and thanks to them we encountered no difficulties whatever.

It was late when we reached the Schwarzegg hut, so we decided to sleep there once more, and the sun was high in the heavens next morning before we sat down to our coffee.

Here is another autumn experience, in which, as a nice, cheering introduction to our day's climbing, we got asphyxiated. "Were we smothered, then?

Were we suffocated?" asks the unthinking reader. No, we were not "asphyxiated dead," as an Irishman would say; we were merely put to sleep at inconvenient periods during the day, after being put to sleep with greater soundness than usual during the preceding night.

But this fragmentary style and absence of all precise information points to something like present asphyxiation; so I must beg leave to say that though I date this from a health resort, I am not a "head-patient," as I once heard those persons classified who were in a particular sanatorium for something or other that was not lungs. It was an enlivening place, that particular health resort. If a youth was ill-mannered, he could not be kicked, because "one can't kick an invalid, you know;" or else the excuse was, "Poor fellow! he doesn't mean it; he's off his chump—*head-patient*, you know." My impression is, that that health resort was as fine a school for self-restraint in the naturally self-restrained, and for downright uncompromising selfishness in those who already were accustomed to look after No. 1, as I know of.

Still I am a long way from our starting-point. Let me make an effort, cross the Lauteraarjoch from Grindelwald, walk down the level glacier beyond,

and get to it—"it" being the sumptuous dwelling known as the Dollfus Pavilion.

Why the good gentleman who built this hut should have constructed it at a distance of three miles from water, was the problem which puzzled our heads while we lay in the sun near the young forests growing up on every side. It was lucky that some eyes, sharper than mine, saw these specimens of Alpine timber, as otherwise we might have stretched our weary limbs on the top of them. Later it transpired that an experiment had been tried in forestry on these slopes, and the poor little twigs had been carefully planted with the idea that, in time to come, they might grow.

As evening drew on, we retired to the hut and made up a glowing fire, destined a few hours later to reduce us to that comatose state I have hinted at above. Perhaps the sluggish condition of mind and body which we experienced next morning was also in part owing to three out of the four members of the party having consumed six basins of very thick soup apiece and twelve large potatoes. The soup, of course, could not be wasted, though personally I would have rather lived on it for three days than have had to swallow it all in one.

After waking with some trouble, and consuming

the above-mentioned soup, we tumbled out of the hut, floundered all in a heap down to the glacier, and began to go along it in a dreamy stagger, varied by a rude awakening, as, from time to time, one or another walked into a crevasse, rubbed his eyes, got out again, and proceeded on his way. Those great-great-great-great-etc.,-grandfathers of ours were wise people to keep off glaciers in their generation. Think what choice language the modern mountaineer finds all ready to his tongue after he has walked for three hours up or down (if there is an up or a down) the Aar glacier, and then discovers that he is no farther. Imagine for an instant what that glacier must have been when it came to the piled-up moraine across the Haslithal near Meiringen. Next time you find yourself pacing the Aar glacier (I have no doubt that you vowed on the last occasion you never would again, but you surely will), think of what it was in the olden time, even when it reached only to the Grimsel, and be thankful that you climb in the nineteenth century.

At last, as we began to think that the Strahlegg Pass really was rather nearer than it had been some hours earlier, we halted and attempted to rouse each other. A warm wind swept up in our faces; our limbs were like lead, our minds in a condition of

placid imbecility. But when, after some trouble, we dug a little cold water out of the glacier, the effect was magical, and emboldened by the sense of our returning faculties, we promptly decided to have breakfast under a great tower of ice which had rolled down from a glacier clinging to the slope above.

We were now equal to all emergencies, and ready to cope with the largest and most varied collection of loose stones I ever saw in my life. The Saddle (which we struck just beyond the drop referred to on page 5, vol. ii. of the second series of "Peaks, Passes, and Glaciers"—at least I should imagine that this gap is the one therein described) and the fine *arête* beyond were a welcome change from the "shocking state of disrepair" of the face. The entire ridge gives as good a scramble as any one fond of rock-climbing can wish for. Nowhere excessively difficult, it is always sensational, and the rocks are big and firm. Most of the time the party is right on the crest, and can glance straight down to the Lauteraar glacier on the one hand or to the Strahlegg on the other. The Lauteraarhorn is seldom taken; probably on account of the trouble of getting at it. People also seem to think that if they have been up the Schreckhorn, they have seen everything of interest in that direction. In this idea they are,

in my opinion, quite mistaken. I have already referred to the view of the Schreckhorn and Finsteraarhorn as well as to that of the Lake of Thun to be obtained from the Lauteraarhorn, and I think that it is very much finer than anything one sees from the Wetterhorn, Jungfrau, or any other of the Oberland peaks with which I am acquainted.

After an hour spent on the summit, we reluctantly began the descent, and at 4 P.M. were on the Strahlegg, while at 5.30, just as the peaks around began to glow with the rosy hues of sunset, we were nearly off the Zasenberg. From here one enters on the preserves of the Interlaken "tripper," so I will abruptly close.

In the next chapter I will give the last of my experiences at my favourite time of year, and talk to you about two old friends—not, alas! with new faces.

CHAPTER XIII.

THE "MAIDEN" AND THE "MONK."

A REMINISCENCE.

"Over the ground white snow, and in the air
Silence. The stars, like lamps soon to expire,
Gleam tremblingly; serene and heavenly fair,
The eastern hanging crescent climbeth higher.
See, purple on the azure softly steals,
And Morning, faintly touched with quivering fire,
Leans on the frosty summits of the hills."

—WILLIAM CALDWELL ROSCOE.

TIME, nine o'clock on a cloudless evening some years ago; place, the Bär Hotel at Grindelwald; season of the year, the middle of September, the most enjoyable month in the higher Alps, given fine weather, of all the twelve. Grindelwald lies in well-earned repose this lovely night. No more do tourists in their thousands infest village, hotel *salons*, and dining-rooms. No throng of touting guides and mule-drivers lingers in the courtyard; no crowd of aspiring travellers makes noisy preparation for the morrow's excursions.

To me this tranquillity is very pleasant, as on

the evening in question, before the age of railways in that district, I drive up the familiar valley, overshadowed by the huge walls of the Eiger, rising amid myriads of twinkling stars, and as I alight at the doors of the Bär, I congratulate myself upon many things.

"Now, Herr Fritz, hunt out my guide from the supper-room for me, please. What! he is not here? Is there no telegram from him? Well, this really is too bad! and the weather is magnificent! However, as he's not here, I certainly won't sit and wait for him; so get me a couple of guides, and to-morrow I will go for a walk amongst the mountains."

Dinner over, enter the "couple of guides." Here is sturdy old Peter Baumann, and there, at the door, stands old Peter Kaufmann. "Well, what shall we do to-morrow? where shall we go?" "All is good," they say; "we will go where you like." "Very well; then let the Jungfrau be our goal. I can start for it at 1 A.M., if you wish." They smile pityingly and remark, "It is nine hours to the Bergli hut, so we shall have quite enough if we go there to-morrow, and up the mountain next day." I don't believe them, and consult Boss; he says eleven hours. That settles the question; so

I retire to bed. I leave word with the guides to order provisions, and to have me called at as late an hour as is consistent with reaching the Bergli before nightfall. Result—they lay in a store of meal-soup, and other atrocities, and arouse me from slumber at 6 A.M. By eight o'clock we are well on our way to the Bäregg, and have overtaken another Jungfrau party—two Austrian gentlemen, with cheery "English" Baumann and old Christian Almer. They progress upward at a measured pace, but at the Bäregg restaurant we meet again, and spend an idle hour, while our respective guides tie up emaciated pieces of white wood into bundles of such extraordinary neatness, that they might be "property" faggots appertaining to an amateur theatrical company. Then on again, down rickety ladders, over swelling waves of ice, and up a narrow track, with the sun beating on our backs, and never a drop of water to be had. At last we all sink in a melting condition on a grassy knoll, and insist on the production of drinkables. The guides, in response, wriggle into sundry fissures of the earth, and extract therefrom cupfuls of icy water, which they dole out in niggardly quantities, exhorting their charges to be sparing in its use.

On again and up, till, with a desperate spurt, we assault the slippery slopes of the glacier, and deposit ourselves in a panting heap on some rocks facing the Bergli.

"How far to the hut, Baumann?" "Oh, two hours or so!" And it is now 11.30 A.M.! For this were we dragged from our downy couches and made to walk up burning slopes under the rays of the autumnal sun! For this were we hurried away from the seductive, though backless, benches of the Bäregg! For this were we denied our second breakfast in three and a half hours, on certain stony pathways where we would fain have halted!

11.30! Very well; here we shall remain and repose ourselves till 3 P.M.

We don't, however. Two hours of gazing at the Eiger, the Mönch, and the Schreckhorn produce an unpleasant stiffening of the joints; so shortly after discovering this we collect our baggage—scattered over about an acre of ground—and proceed across the level glacier towards the steep snow slopes coming down from the Mönchjoch. After an hour or two of threading our way amongst huge chasms, varied by passages in tight-rope style over knife-edges of ice, we reach our hut. From here we

witness an acrobatic performance without having to undergo the expense of an entry fee; indeed, the accommodation of the front row of stalls is too shamefully bad for any one to suggest that we should pay for it. Far down below us on the snow toil our fellow-travellers. From time to time one of them, who, at starting, had declared himself to be "no mountaineer," casts himself on the white surface. The guides and his friend haul. He slithers along a little; then suddenly rights himself like a gutta-percha figure with a weight inside. On again—down again—up again, so does the party advance.

Of the supper the less said the better; and yet I have heard of Englishmen who like meal-soup!

Now to bed. Pleasant dreams, sweet repose. *Repose!* Yes! Audible repose for the Austrian after his gymnastic feats; for his friend, for me, even for the guides, none. Well, we count to a hundred, to two hundred, to two hundred backwards. We light lucifer-matches and examine our watches. We even contemplate cutting the cords of the ambulance arrangement, so that it may come down with a run on our slumbering companion. We are fairly worked up to a murderous state of mind, and almost of body, when—"Zwölf Uhr!" resounds in stentorian accents, and

we spring from our hay, and viciously shake the source of all our discomfort. "What?" he says sleepily. "Twelve o'clock? No, thanks; no Jungfrau for me!" and thereupon turns over and loses himself once more in the land of dreams.

More meal-soup, followed by coffee, buttoning up of gaiters, packing up of all the things we ought to have left behind, uncoiling of ropes, jodeling of guides, and off we go.

What a joy to swing along over the frozen snow, from which countless ice-crystals gleam up to us with bright innocent eyes, nowise resentful that at every step they go crunch, crunch under our great clumsy boots. The glacier streams down in a silver flood to our right. The mountain-tops, bathed in brilliant moonbeams, seem to hang in the sky. The radiant beauty of the night, the still, keen air, the silence of the surroundings, all combine to make the seventeen minutes which it takes us to reach the Mönchjoch, pass like so many seconds. From here, dazzled by the startling loveliness of the view, and looking anywhere but at my feet, I carelessly slip into the *bergschrund*. I am pulled out, and in twenty-five minutes more we cross the Ober-Mönchjoch, and see in front of us the shining robes of our "Maiden." A jodel from the guides, and we are

running wildly down the snow slopes, across the plateau, and on to the very mountain itself. It is now very cold, with the chill of early dawn in the air. We have not gone far above the Roththal Saddle when the purple of the sky grows warmer and warmer, till at last the peak above us blushes in the rays of the rising sun. A short half-hour more, and we cluster on our goal, pitying our friend below in the hay of the Bergli.

It is early yet, and Baumann, good old sportsman that he is, says, "Now we will go up the Mönch." "No," I reply, "I am out of training, and to-morrow I must cross the Strahlegg. We will now go home." But Baumann blinks his eyes, and when we reach the plateau, makes a dead halt. "The Bergli or the Mönch?" he inquires. The Mönch looks near, and I weakly give in. Our fellow-travellers here leave us. We get on to the ridge running up from the Ober-Mönchjoch. All goes swimmingly. We reach the final crest. Alas! it is shining ice from end to end. Old Kaufmann is awfully done; from time to time he crawls on to the cornice. Baumann, from behind, shouts warningly. We seem to make no progress. An hour passes. We are not half-way along the *arête*. "Now, then," I say, "let me get right on to the ridge and see the view; then I am

going home." The guides protest, but I am obdurate; the cornice and the great fatigue of Kaufmann have decided me. Eventually we go down. Hurrying along the level snows, halting for as short a time as possible at the Bergli, sliding and running where we can, at last we reach the Grindelwald glacier. By now it is pitch-dark; our lantern won't behave properly; our candle continually goes out, and we wander for an interminable time over ice and moraine. Finally, by a process akin to that of "the survival of the fittest" (having tried about every route on the glacier), we strike the Bäregg ladders, and thence hasten down to the valley.

Having described the pleasures of climbing in autumn, it is but fair that I should not ignore the single occasion on which I have experienced bad weather at that season. It was on October 2nd, a year later, that, with Ulrich Almer, Christian Jossi, and Herr Theophile Boss, I set out from the Roththal hut to cross the Jungfrau. The weather had been perfect for several days past, but on the previous evening the sunset gave signs of a change, while the lightning, which trembled along the western horizon, was another indication that a storm was imminent.

It being, therefore, doubly important to make an early start, the guides commenced by over-sleeping themselves, and it was nearly 5.30 A.M. before the hut was quitted. A lot of step-cutting retarded our progress, and it was 11.35 A.M. before we halted, three or four minutes below the summit, for our second breakfast since starting. Clouds were now drifting up on all sides; but the more serious part of the business was done, so the weather could not matter greatly to us. We remained but a moment on the top, and then amidst shrieks of "Schnell! Vorwärts!" from Jossi, we turned to descend in the teeth of a blinding snowstorm. Well, it was cool; certainly it was not cold, for we wore our gloves in our pockets. We had excellent steps, too, thanks to a party who had ascended from the Bergli a couple of days previously. The walk to the Mönchjoch was deadly dull, the only objects visible being our noble selves. Under the leadership of such guides as ours, however, we never deviated from the right direction for an instant, though the tracks were, of course, by this time entirely obliterated. A comfortable night at the Bergli was a good preparation for the descent, through waist-deep snow, to the valley.

During the evening the guides had discoursed at

much length on a feature of the morrow's route, which, with all the picturesqueness of inaccuracy, they described as an ice-wall. Now, an *Eiswand* conveyed to my imagination a green cliff, shiny of surface, slippery to the touch, and perpendicular in formation. All these features were, however, absent. The "wall," which was about 170 feet in height, was certainly of ice, but the ice was coated with firm snow to a depth of several inches. I am not learned in angles, but I should say that seventy-five degrees was somewhere near the slope of the first five steps, after which the steepness steadily decreased. The last man, assisted by a bit of whip-cord doubled round a piece of firewood driven in at the top, took seven minutes to come down, so the difficulties of the way were not unduly great. I am obliged to enter into these details because the character of this highly inoffensive slope was cruelly maligned by the party previously referred to, and on our return to the village, after a descent over the Zäsenberghorn, monotonous by reason of its entire simplicity, we were questioned by a curious crowd as to the horrors of the ice-wall. Our predecessors had already left the place, so we could but fight the united army of credulous persons whom they had left behind, and in whose imaginations the ice-wall

of the Mönchjoch no doubt lives even to the present day as one of the terrors of mountaineering.

I have now told the worst of my experiences of autumn in the Alps. How easily hundreds of climbers could cap it with their accounts of summer in those regions!

APPENDIX.

APPENDIX.

As I put forward no claim whatever for originality in this little work, I shall perhaps escape blame from climbers, and earn some thanks from the general public, if I place in the way of the latter a poem, the greater part of which appeared in the *Alpine Journal* (volume xiv., page 64), and which consequently was not likely to have attracted the attention of the non-mountaineering traveller. Through the courtesy of the author, I am enabled to reprint it in full in these pages. We who spend much of our time amongst "Heaven's nearest neighbours," grow to love our surroundings more and more. It is often said that people ascend peaks in order to boast of their achievements. Of some, no doubt, this is true. But I cannot give better proof of how such persons are looked upon by the true mountain-climber than by quoting the lines I have referred to, with the spirit of which I, and thousands more, are entirely in sympathy. The poem, entitled, "Mountain Midgets;

or, Thirty Years After," is supposed to have been copied from a stranger's book in a well-known mountain resort, and is headed:—

TO MY FELLOW-GUESTS.

(*An Original Member of the Alpine Club speaks.*)

I WAS with the men who conquered all the Alps, and climbing higher
Watched, from Caucasus or Andes, Phosphor soaring like a fire;

But, successors of De Saussure! You, presumably with souls,
Who treat Heaven's nearest neighbours as the pit-bear treats his poles,

Show your foolish "forms" upon them, "cutting records" as you run,
Craving of a crowd that jeers you, notoriety—your bun!

You, who love an "Alpine centre" and an inn that's full of people,
Where the tourists gape in wonder while their Jack beflags his steeple;

Stars, who twinkle with your axes, while girls "wonder what you are,"
Through a village, that's the image of a Charity Bazaar;

Stars, who set beneath the wineshop, where "the men must have a drink":
So the idler leads the peasant down the path where he will sink,

Till discredited, discarded, game for snobs who "stand a treat,"
The old guide of twenty summers touts for custom in the street!

Lads, whose prate is never-ceasing, till the *table d'hôte* is crammed
With the *gendarmes* you have collared, and the *cols* you've *spitzed* or *kammed!*

Not for you the friendly *Wirthshaus*, where the *Pfarrer* plays the host,
Or the vine-hung *Osteria*, where the bowls go rattling most;

Not for you the liquid splendour of the sunset, as it dies,
Not for you the silver silence and the spaces of the skies,

Known of men who in the old time lodged in hollows of the rocks,
Ere those Circe's styes, the Club-huts, harboured tourist-dom in flocks.

There you lie beside your porters in tobacco fumes enfurled,
And think more of cold plum-pudding than "the glories of the world";

There you ponder with your fellows on the little left "to do,"
Plotting darkly Expeditions that may, partially, be New;

Boasting lightly, while the brightly-beading Bouvier brims the glasses,
How you'll "romp up" avalanche tracks and you'll rollick in crevasses;

Dreaming fondly of the glory that such "azure feats" must get,
When your guide narrates the story in the *Grindelmatt Gazette;*

Gloating grimly on the feelings Hobbs and Nobbs will strive to smother,
When they learn the Gross Narr Nadel has been just "bagged" by another:

Hobbs and Nobbs, who, slily stealing to our Grün Alp telescope,
May find solace in revealing how you faltered on the rope.

Mountain Midgets—thus I hail you, who to littleness your own
Fain would drag down Nature's Greatest, leave earth's minster-spires alone!

Yet in vain an old man preaches. What is brought shall still be found,
Still the raw, relentless athlete make the Alps his running-ground;

Still the Greater breed the Lesser on through infinite degrees,
And the mountains have their Midgets—as the glaciers have their fleas.

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